

# Chapter 1:

## Existing Conditions

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### Project Area

The project area encompasses all of Glacier, as well as surrounding areas that provide day and overnight services (see the map, Figure 1). The term 'project area' will be used when addressing visitor use and transportation issues that extend outside the park boundaries. Specific Plan elements are generally contained within the park. All towns in the project area fall within approximately 50 miles of the park's boundaries. The following towns surrounding the park are considered in the project area and are referenced in relation to their transportation systems and amenities used by park visitors.

#### North of Glacier

- Waterton Park (in Waterton National Park)
- Cardston, Alberta

#### East of Glacier

- St. Mary
- Babb
- Browning
- East Glacier Park
- Cut Bank

#### South and West of Glacier

- West Glacier
- Coram
- Hungry Horse
- Columbia Falls
- Whitefish
- Kalispell
- Essex
- Martin City
- Polebridge

By understanding the existing condition of the transportation system and visitor use in Glacier, recommendations can be made for parts of the system that need updating or improvements. This chapter will provide a brief history of transportation and visitor use within the park. The existing condition of the transportation system will also be described, based on available information. Finally, visitor use of Glacier will be described in terms of available information.

Historically, visitor use information for national parks has been scarce due to a lack of understanding and only recent interest in visitor use management. Overcrowding of national parks has brought this issue to light in recent years; however, a uniform and approved system of determining carrying capacities and measuring visitor use has not yet been established. The Visitor Use portion of this Plan attempts to organize the visitor use information from Glacier and establish a plan and monitoring system that has the potential for future application to other park systems as well.



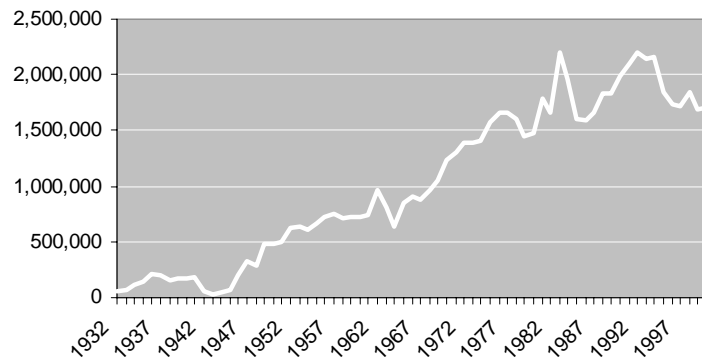
To compete with Northern Pacific's Yellowstone rail system, Great Northern financed construction of the Glacier rail line.

## The History of Transportation and Visitor Use in Glacier

Glacier has seen mostly steady and, at times, explosive increases and variable decreases in visitation since the designation of the area as a national park. Figure 2 shows Glacier's annual visitation from 1932 (around the time of the International Peace Park designation and the opening of the Going-to-the-Sun Road) to 2000.

In 1892, the Great Northern Railway traveled over Marias Pass and along what was to become the southern boundary of the park, marking the beginning of the greatest increases in visitation, as more visitors had access to this remote area of the country. After the Glacier's official designation as a national park, a supplemental transportation system was created based on the rail line, providing opportunities to see more areas of the park. The Great Northern was responsible for most early developments

in Glacier, financing construction of roads, trails, bus systems, a lake-launch system, hotels, chalets, teepee camps, and a telephone communication network. Great Northern's interest in this area was fueled by competition with Northern Pacific, which had established a similar system for Yellowstone National Park.



**Figure 2:** Glacier National Park Annual Visitation, 1932 to 2000

The coming of the automobile produced even more drastic changes in the park. The completion of Going-to-the-Sun Road (or, the Road) marked major increases in visitation as people now had the freedom to access the park using their own automobiles. The Road is still considered an incredible engineering feat, and has been designated as a National Historic Landmark. It has also been listed on the National Register of Historic Places.

By the late 1930's and early 1940's, the type of visitor to the park was changing. The earlier railroad package-tour visitors were rapidly being outnumbered by independent automobile travelers, thanks in large part to the opening of the Road. Facilities were needed for this new class of travelers, since the old railroad hotels were not really appropriate for them. Park managers began to realize that visitation was increasing too rapidly, and Glacier's resources could not sustain such growth.

Great Northern's open coach car gave early visitors an unfettered view of Glacier's wonders.



Contemporary government policies advocated “wise-use development,” which promoted activities within the park that would please the greatest number of people. More visitor facilities were built at that time, and more land was used for roadways and other amenities to accommodate ever-increasing volumes of people. Park managers began to see that preservation of natural resources would need to be addressed, as the park could not sustain the continual increases in visitor use. They began to resist the construction of new roads. Chief Mountain International Highway was opened in 1936, and this marked the end of major new roadway construction until the opening of Camas Creek Cutoff Road in 1968.

In 1956, “Mission 66” commenced. This ten-year program was started for the dual purposes of visitor management and facility improvement. Under Mission 66, the St. Mary and Logan Pass Visitor Centers were built, campground facilities were improved, sanitation operations were improved, and expanded interpretive services were expanded within the park.

Great Northern controlled most activities and concessions in Glacier until 1960 when the holdings were sold to Don Hummel, an Arizona attorney. Since then, visitation has trended upward (although it has shown recent signs of tapering off), making transportation and visitor use issues more important than ever. Park plans over the years have addressed the need for an efficient transit system and for proper management of visitor use. As some facilities and roadways in the park are over capacity and showing signs of impact, the current Transportation and Visitor Use Plan will address and provide an implementation plan and monitoring system.

## Transportation At Glacier

### Roadway Types, Locations, and Functions

Table 1 provides an inventory of the roadway system features in Glacier.

**Table 1: Glacier National Park Roadway Inventory**

Feature	Number of Features or Total Miles	Additional Information
Unpaved roadway	57 miles	Most are 18 to 24 feet wide and have little or no shoulder area.
Bridges	51	None
Tunnels	2	<ul style="list-style-type: none"> <li>• West Side Tunnel – 186 feet</li> <li>• East Side Tunnel – 440 feet</li> </ul>
Park entrances	6	<ul style="list-style-type: none"> <li>• Camas</li> <li>• Polebridge</li> <li>• West Glacier</li> <li>• St. Mary</li> <li>• Many Glacier</li> <li>• Two Medicine</li> <li>• Goat Haunt</li> </ul>
Paved trails	~8 miles	None
Unpaved trails	~730 miles	None
Nature trails	6	<ul style="list-style-type: none"> <li>• Huckleberry Mountain</li> <li>• Trail of the Cedars</li> <li>• Hidden Lake</li> <li>• Sun Point</li> <li>• Swiftcurrent</li> <li>• Running Eagle Falls</li> </ul>
Going-to-the-Sun Road	50 miles	<ul style="list-style-type: none"> <li>• Spans the width of Glacier</li> <li>• Crosses Continental Divide at Logan Pass</li> <li>• Uniform grade of about 6 percent in alpine section</li> </ul>

**Winter Closures.** Due to the seasonal nature of the area and difficult winter conditions, many roads are closed or partially closed for a majority of the year. The park's main attraction, Going-to-the-Sun Road, is closed over a significant portion of its length including in the Logan Pass area from mid-October to mid-June (this varies somewhat depending on seasonal weather conditions). The Chief Mountain Highway, located in Glacier's northeast corner, is typically closed from the end of September to mid-May. Many minor roads in the system are not maintained and are closed during the winter season as well. Visitor use drops off sharply at this time as little of the park is accessible except by short segments of the main roadways, on foot, or by other forms of backcountry transportation such as horses, skis, and snowshoes.

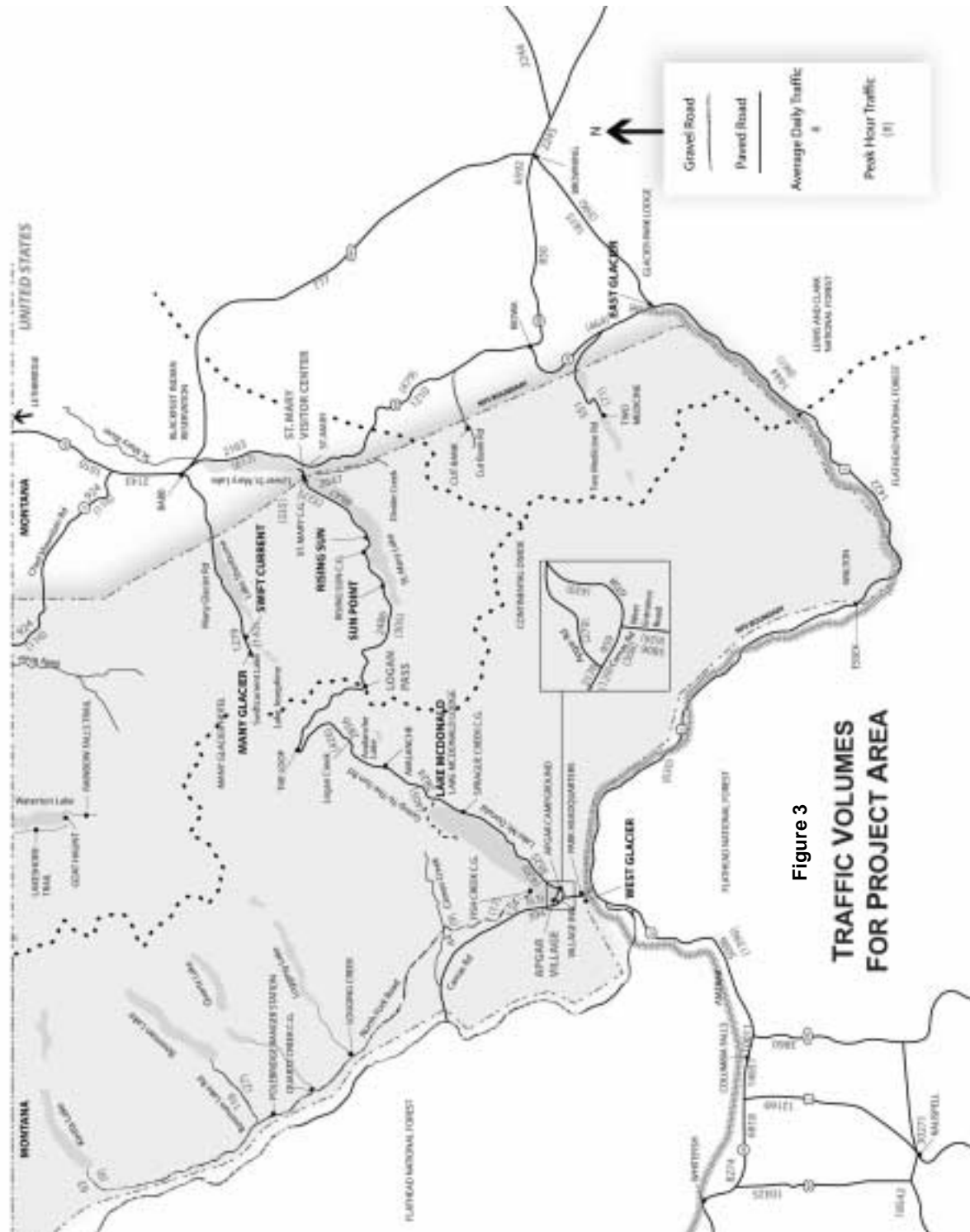
## Roadway Use and Maintenance

### Existing Traffic Volumes and Level of Service Within the Park, and on Roads Entering the Park

Information on traffic volumes is based on past and recent traffic counts. No new traffic counts were conducted for this study. The following map shows the Average Daily Traffic count (ADT) and Average Peak Hour Traffic Flow (peak hour) for 2000 on the roads within the park and for the highways outside of the park. Traffic volumes are shown on the map in Figure 3. Appendix A shows the ADT and Peak Hour counts in tabular form as well as the specific dates and sources for all traffic counts.

Traffic volumes within the park and on roads entering the park are used to measure the level of service (LOS) for all roads within the study area. LOS for roadways and intersections is based upon traffic flow, speeds, and delay. To function satisfactorily, a roadway should operate at a lower volume of traffic than the LOS standard.

LOS standards have not been set for roadways within the park. The maximum number of vehicles that can be carried on a roadway at any particular level of service is known as the service volume. Levels of service are designated from A through F (with A being the best and F the worst) to cover the full range of traffic operating conditions. For roadways, these levels of service are described as follows:



- **Level of Service A.** A free-flowing condition with low volumes and high speeds, few or no restrictions to traffic, and few delays.
- **Level of Service B.** Stable flow with operating speeds and passing beginning to show some restriction. Reductions in speeds may occur with a low probability of traffic flow being restricted.
- **Level of Service C.** Relatively stable flow with speeds (40 mph or higher) and maneuverability more closely controlled by the higher volumes. Most drivers are restricted in their freedom to select their own speed, change lanes, or pass.
- **Level of Service D.** Approaching unstable flow with tolerable operating speeds although considerably affected by changes in operating conditions. Drivers have little freedom to maneuver and pass other vehicles; comfort and convenience are low.
- **Level of Service E.** Represents operations at even lower speeds than LOS D, with volumes at or near the capacity of the highway. The highest volume attainable under E defines the capacity of the roadway. Flows are unstable and momentary stops may occur.
- **Level of Service F.** Forced stops or breakdown of road operation where volumes exceed capacity. Speeds are reduced substantially and stops may occur for short or long periods of time because of down-road congestion.

The 1997 study conducted by Robert Peccia & Associates concluded that all areas maintain LOS B or better except Going-to-the-Sun Road. The Road is operating at LOS D, which is approaching unacceptable conditions. This indicates that any substantial increase in traffic volumes or disruption to traffic flow (such as would occur with road construction) would potentially affect the roadway with an unacceptable LOS.

LOS for different segments of the Road and LOS identified for park roadways and intersections are shown in the following table, which also shows the range of volumes that indicate LOS E for different segments of the roadway.



**Table 2: Levels of Service (LOS) on Going-to-the-Sun Road**

Road Segment	1984 Peak Hour Volume	LOS E, Range of Volumes	1984 LOS
West entrance to Camas Road	590	1,000-2005	D
Camas Road to Lake McDonald Lodge	490	520-1,320	D
Lake McDonald Lodge to Avalanche Creek Campground	490	520-1,320	D
Avalanche Creek Campground to Logan Creek	460	540-1,030	D
Logan Creek to west portal, West Side Tunnel	460	285-850	E
West portal, West Side Tunnel to Logan Pass	460	215-685	E
Logan Pass to St. Mary Falls trailhead	450	285-855	E
St. Mary Falls trailhead to Rising Sun	450	305-880	E
Rising Sun to St. Mary entrance	430	555-1,320	D

Roadway capacities were determined for the Road using Highway Capacity Software (HCS) based on current traffic volumes and existing conditions on the east and west sides of Logan Pass. This resulted in a worst-case calculation because this is the portion of the Road with the highest altitude, the narrowest roadways (eighteen feet), the steepest grade (six percent), and relatively high traffic volumes (390 peak hour volume). This portion of the roadway was found to operate at LOS E.

In order for the roadway to fall within LOS D for this area during peak periods, volumes would have to be at 329 vehicles per hour or lower.

## Maintenance

The roadways mentioned above for seasonal closures are not maintained or plowed during the winter season. Plowing on the roadways of the park begins in April and is not completed until June (this varies somewhat depending on seasonal weather conditions).

While potholes and other minor pavement repairs are being made on a regular basis, one issue of major concern for the park is the condition of the Road. Since the 1950's, no substantial rehabilitation has taken place in the alpine section. The passage of the Surface Transportation Assistance Act (STAA) in 1982 encouraged the Federal Highway Administration (FHWA) and the National Park Service (NPS) to develop a road improvement program. This program facilitated the reconstruction of

20 miles of the Road, costing \$18 million. However, most of the reconstruction took place on lower sections, with less than one mile reconstructed in high-mountain sections.

**Vehicle Restrictions.** To reduce congestion on the Road, vehicle restrictions have been put in place. For areas over Logan Pass between Avalanche Creek and Sun Point, vehicles can be no wider than eight feet and no longer than 21 feet. Oversize vehicles must travel around the park via U.S. 2. Bicycles are also restricted on the Road between Logan Pass and Lake McDonald. Bicycles are restricted from Apgar to Sprague Campground from 11:00 a.m. to 4:00 p.m. and from Logan Creek to Logan Pass eastbound from 11:00 a.m. to 4:00 p.m. These bicycle restrictions are in effect from June 15 to Labor Day, and sometimes as late as September 30.

The maximum posted speed limit along the Road is 45 miles per hour. The alpine section, however, has a lower speed limit due to some congested areas and some areas that are steep, narrow, and winding.

**Other Information Available.** Other recent studies have been conducted, resulting in recommendations for certain aspects of the transportation system within the park. These include the *Transportation Plan* (U.S. Department of the Interior/National Park Service, 1990) for Glacier and the *Traffic Safety Study* (Robert Peccia & Associates, July 1994). Some of the recommendations made within these documents were used as guidelines for compliance on transportation issues, while others have not yet been (or will not be) implemented. The following work has been completed on the transportation system within the park as part of an attempt to comply with current standards and regulations:

- Vehicle length restrictions were implemented as recommended, except with a 21-foot length restriction instead of the 20 feet recommended.
- Turnout recommendations were not followed precisely; however, they were considered during implementation.
- Recommendations to change the intersection of Going-to-the-Sun Road and Camas Road to a three-way stop were followed; however, the long-term solution - construction of a visitor orientation turnout south of the intersection - has not been implemented.

- The long-term solution to change the Camas Road/Apgar Loop Road intersection was implemented.
- Bicycle restrictions continue as recommended.
- For the Going-to-the-Sun Road and the Visitor Center at Logan Pass, many recommendations were followed and additional improvements were implemented. Thirty to 40 informal and social roadside parking spaces were deleted, parking in the main lot was increased, pedestrian usage and vehicular traffic in the parking area were separated, curbing and/or barrier rock was installed along the roadside to discourage parking (instead of the “wooden guard rail” recommended), and the west intersection was realigned.
- The realignment of the Going-to-the-Sun Road intersection at Sun Point is currently in the process of being funded.

## Transit and Transit-related Amenities Available

Several forms of transportation are allowed within the park, as discussed below. One can travel by foot, horseback, bike, boat, automobile, or bus. Because of the sensitive nature of the environment and the large amount of wilderness area, snowmobiles are not permitted.

**Bus Service/Transit.** Transit services within the project area include concessioners for the park, and local and regional services for local communities that provide minimal connections between communities. All available services are being considered as options to provide transit from surrounding areas to Glacier (see Appendix C: Transit Scenarios).

- **Glacier Park, Inc.** (GPI) is the main concessioner for Glacier National Park. GPI manages most lodging, restaurants, and transportation services within the park, with about 500 employees park-wide. GPI provides narrated tours and a shuttle service along the Road. Services run from July 1 through Labor Day weekend. Historic “red” busses dating back to 1936 have been in use for tours until recently, when structural problems led the park and GPI to temporarily replace them with a fleet of Dodge vans. Glacier is currently in negotiations to repair or replace the

buses with prototypes, and hopes to have some back on the road by the end of 2001.

The tour service provides an interpretive narrative during full and half-day tours on the west side of Glacier, and full day tours on the east side, leaving once daily. A tour takes anywhere from three to nine hours, depending on departure location and the route taken. During the season, vans depart from Lake McDonald Lodge, Glacier Park Lodge, Many Glacier Hotel, Village Inn at Apgar, and Rising Sun Motor Inn. The majority of passengers who use this service are members of package tour groups who utilize the GPI service because of restrictions which prevent large commercial buses from traversing the Road.

The shuttle service provides one-way and round-trip service along the Road. These van shuttles stop at trailheads, hotels, and campgrounds along the Road (about twelve scheduled stops at park attractions). The shuttle also provides one-way trips, if desired, between several lodging facilities within the park. One-way services such as the Many Glacier to Logan Pass route leave two to three times daily; shorter trips leave more frequently.

Shuttle fares range from \$8.00 to \$16.75 per person (2000 rates). Tour fares range from \$20.75 to \$61.00 per person (2000 rates). All rates depend upon the route taken.

The total number of riders for 2000 was 45,800. This is a decrease from 1999 ridership, which was 64,401. This may be attributed to the use of the vans, as some riders feel that they are less attractive, less comfortable, have less effective capacity, and limit viewing opportunities as compared to the historic red busses.

- **Sun Tours** is another concessioner for Glacier, providing interpretive motor tours that focus on Blackfeet culture and history relating to Glacier's natural features. These tours run from mid-June to September 30 with a staff of about five. The tours travel the length of the Road and back in a full day tour, departing from St. Mary, East Glacier, and Lake McDonald Lodge once a day. Pickups are made from Johnson's Campground, St. Mary KOA Campground, St. Mary Lodge, St. Mary Visitor Center, and Rising Sun Campground.

The round trip tour from East Glacier leaves at 8:00 a.m., makes the scheduled pick-ups outside and inside the park, travels over the Road to Lake McDonald Lodge for a one-hour lunch stop, and returns to East Glacier by 4:30 p.m. Round

trip fares for this tour (2000 rates) are \$45 for adults, \$20 for children five to twelve years of age, and free for children under five.

The St. Mary tour leaves at 9:15 a.m., follows the same route as the East Glacier tour, and returns to St. Mary Lodge by 3:30 p.m. Round trip fares for this tour (2000 rates) are \$40 for adults, \$15 for children five to twelve years of age, and free for children under five.

Tours also leave from Browning based on demand.

- **Rocky Mountain Transportation (RMT)**, the largest transportation provider in Flathead County, provides a regional service with headquarters in Whitefish, Montana. RMT formerly operated the Going-to-the-Sun Road shuttle for about five years (1992-1996; now operated by GPI), and currently provides limited, on-demand service to Glacier. RMT now operates specific services in the region such as school buses, vans for railroad crews, and Big Mountain transit, or the "Snowbus," which provides shuttle service from Whitefish to the Big Mountain ski area and back. Other services include a Hertz franchise for rental car services and shuttles from local lodging facilities in Kalispell and Whitefish to Glacier, based on demand.



Historic red busses have been popular with visitors since 1936.

The Big Mountain Commercial Association manages the Snowbus, and RMT has been contracted as the transportation carrier. Costs to run the shuttle service to Big Mountain and back are \$35 per hour; however, local businesses and the Big Mountain Resort Association pay these costs so that services are free of charge to the rider. Shuttles run 154 days of the year from 6:00 a.m. until midnight, with fourteen round trips per day. Bus capacity is about 60, with 38 seats. In 1999, Snowbus ridership was 40,000; 2000 figures are estimated to be higher at 44,000.

The Going-to-the-Sun shuttle operated by RMT was not self-sufficient, primarily due to ridership, as demand was limited for the early and late runs. In the past, it was suggested that schedules be based on demand, eliminating the early and late runs. Another suggestion included upgrading the buses with larger, heavier duty vehicles that would be better able to negotiate steep grades, especially in poor weather conditions; however, this would be limited by existing vehicle restrictions. RMT is not currently a park concessioner, and the amount of service provided to the Glacier area is very minimal and only in response to specific traveler requests.

- **Eagle Transit** is a local service in Flathead County with municipal authority in Kalispell, Whitefish, and Columbia Falls. The service does not have regional transit authority, and a public vote would be required to create a district and give the service taxing authority.

Eagle Transit began as a dial-a-ride service and contract service, but now provides fixed routes with some deviation based upon the needs of the riders. Services include a city bus route (Kalispell), a limited service between towns based on demand (two days a week, twice a day), a subsidized taxi service, and a broker for carpool/vanpools. The service has eight buses (two more to arrive in the near future) and about 50,000 boardings per year. 80 percent of the passengers are elderly or disabled, as Eagle Transit began as a service for these groups. The primary focus has become the regional services provided Monday through Friday, as no regional service is provided on the weekends.

The service has approximately nineteen scheduled stops with dial-a-ride stops as well, creating some variance in pick-up times. General fares for the city route are \$1.00 per passenger, with monthly passes available for \$25 and other discounts and specials for students, disabled, and elderly persons.

Funding for Eagle Transit comes through the state as pass-through for federal transit grants. Other funding comes from local, undedicated sources, and varies from year to year. The current budget for the system is \$300,000 per year with average costs of \$40 per hour, not including capital or overhead. The biggest cost for the service is salaries and benefits. Eagle Transit is not currently a park concessioner, and the amount of service provided to the Glacier area is very minimal and only in response to specific traveler requests.

Eagle Transit shows a need for more and better services, as current demand is too high for what is currently available. However, lack of funding, limited

resources, and lack of political support for transit make changes to the system difficult. The transit plan will address this issue in a limited fashion and offer possible solutions to make it easier for travelers from in-state and out-of-state to travel to Glacier from surrounding communities without the use of a private automobile.

- ***Other transit providers.*** Two other transit providers operate in the area, providing smaller-scale or outlying services. Rimrock Stage/Rimrock Trailways Whitefish is a transportation provider that makes connections between Missoula and Kalispell, stopping at Whitefish. One round-trip is made daily, and fares for riders are \$20 each way. Blackfeet Transit also operates out of Browning and serves the Blackfeet Nation and is geared toward the needs of the tribal members. The Blackfeet Transit Service is seldom, if ever, used by Glacier tourists or other travelers.

**General boating.** Commercial boat trips are restricted to only Lake McDonald, Waterton, Sherburne, St. Mary, Bowman, and Two Medicine. The latter two of these allow only motors of ten horsepower or less. The park also contains 620 lineal feet of floating docks.

Two separate boating companies run tours within the park. Glacier Park Boat Company, a park concessioner, manages a commercial boat tour and small boat rental on all six lakes listed above except Waterton Lake. The company employs about 26 people. Waterton Inter-Nation Shoreline Cruise Company runs a boat tour and transportation services on Waterton Lake between Canada and Goat Haunt in Glacier. Boat tours also operate on Josephine and Swiftcurrent Lakes.

**Horseback Riding Tours.** Horseback riding tours are also run in the park. The only authorized concessioner in Glacier is Mule Shoe Outfitters. This company provides guided horseback riding and packing services at Apgar, Lake McDonald and Many Glacier. The company employs about 25 people.

**Hiking.** Many hiking services are provided in and around the park. These services provide guides for day hikes, as well as backcountry trips that can last several days. The Montana Raft Company/Glacier Wilderness Guides, a concessioner, provides backpacking and day hiking guide services, and guides hikers to the Granite Park Chalet, a backcountry hiker shelter. This company employs about 33 people.



**Rafting.** Several companies provide guided rafting services under permit with the U.S. Forest Service for white-water rafting and fishing trips on rivers surrounding Glacier. These trips last from three hours to six days.

### **Forms of Transportation Available in Areas with Close Access to Glacier**

Although many forms of transportation are available to bring visitors from all over the United States to the area surrounding Glacier, there is no scheduled regional link to transport visitors easily and inexpensively to Glacier. (Amtrak rail transit is the exception. It provides good passenger connections to Glacier.) Visitors are forced to rely on taxis, limousines, or other rented vehicles to get to the park. These services are described below.



**Area Transit.** In addition to local transit, there are other services within the region that provide national transit.

- **Amtrak** train service travels east and west from Chicago to Seattle on the Burlington Northern & Santa Fe rail line. Amtrak provides stops in many areas near Glacier, including Belton Station in West Glacier, Glacier Park Station in East Glacier (seasonal), and Essex. Regional stops include Cut Bank, Browning (seasonal), and Whitefish.
- **GPI Bus Service.** In addition to other services described above, GPI provides shuttle service from Belton Station in West Glacier to the Village Inn (\$2.00 per person) or Lake McDonald Lodge (\$4.75 per person).
- National bus service to the area is provided by **Greyhound** bus lines, which provides scheduled service to Whitefish.



Amtrak provides seasonal service to Glacier Park Station, as well as Belton and Essex. Regional stops

**Airports.** Glacier Park International Airport in Kalispell is the only major airport within the project area. Four carriers serve it. Delta Airlines offers jet service that connects through Salt Lake City, Utah. Horizon Airlines, an affiliate of Alaska Airlines, offers jet service from Kalispell to Seattle, with connecting flights to numerous Northwest and Pacific coast cities. Northwest Airlines offers jet service that connects through Minneapolis, Minnesota. Big Sky Airlines offers daily small-plane service to Spokane, Washington, and several cities in Montana..

**Airport Shuttles.** Two shuttles serve Glacier Park International Airport. Service is not scheduled to Glacier entry points, and their use by Glacier visitors is limited. The table below compares rates for service to various locations in the park, as provided by the following two companies:

- **Airport Shuttle Service/Kalispell Taxi** provides shuttles based on demand. The service has fourteen vehicles available, including private taxis and small transit buses. Three of the vehicles are ADA-compliant. The service can accommodate as many as fourteen passengers per trip, and will drop off visitors at any location in the park (in areas that the Park Service allows for non-concessioners, and with seasonal limitations). This service is also available to shuttle airline crews and Amtrak crews to and from hotels and lodging. Some of these rates depend on seasonal closures. If the shuttle has to travel around the park rather than through it to reach a specific destination, fares will change according to mileage.
- **Flathead-Glacier Transportation Company** also provides shuttles from the airport to Glacier, based on demand. The service has ten, fifteen-passenger vehicles. Visitors can be dropped off at any location in the park (also within areas that the Park Service allows for non-concessioners, and limited by seasonal closures).

**Table 3: Transportation Services and Costs**

Destination	Airport Shuttle Service/ Kalispell Taxi (\$1.25 per mile plus \$2.00 per person)	Flathead-Glacier Transportation Service (\$1.40 per mile plus \$2.00 per person)
West Glacier	\$30.00	\$33.00
Apgar	\$34.00	\$38.00
Lake McDonald	\$50.00	\$56.00
St. Mary	\$100.00	\$112.00
Many Glacier	\$125.00	\$140.00

**Rental Vehicles/Taxis/Limousine Services.** As mentioned above, rental vehicles are one of the main forms of transport from outlying communities to the park. Rental vehicles are available in Browning, Essex, East Glacier, West Glacier, Kalispell, and Whitefish.

The major rental companies that serve the area are as follows: Avis, which serves Glacier International Airport; Budget, which serves Glacier International Airport and the Whitefish Amtrak Depot; Dollar, which serves Glacier International Airport, the Whitefish Amtrak Depot, and West Glacier; and Rocky Mountain Transportation/Hertz, which serves Glacier International Airport and the Whitefish Amtrak Depot.

Taxis are also available in limited areas. Airport Shuttle Service/KalispellTaxi and Flathead-Glacier Transportation Company are the main suppliers of taxi/shuttle services. Limousine services are also available from Kalispell, but are not typically cost-effective. They are therefore used by a minority of visitors.

Parking lots are increasingly congested during peak periods, as illustrated by this facility on Logan Pass.



## Transportation Amenities

Many transportation amenities exist inside Glacier to serve the majority of visitors who use private automobiles to get around the park. These are described below.

**Parking/Pullouts.** Parking in Glacier has become a major source of discussion and debate as parking areas become more crowded, exceeding capacity in some areas. The park has large parking areas accommodating over 100 vehicles, as well as small



Visitors use a pullout along Going-to-the-Sun Road, and park across the road as well.

turnouts for a handful of vehicles along the various roadways (see Appendix B for a complete inventory of parking areas along the Road).

Pullouts along the main roads in Glacier include the following:

- Going-to-the-Sun Road (197 spaces)
- Camas Road (24 spaces)
- Chief Mountain Road (26 spaces)
- Many Glacier Road (49 spaces); and
- Two Medicine Road (24 parking spaces)

Each pullout has from five to 30 spaces available. These areas are designed for visitors to pull over and enjoy different sites and views along the roadways (especially Going-to-the-Sun Road).

Pullouts are also a source of discussion, as some problems exist within these areas. Many are inadequate because vegetation blocks the view of traffic and creates limited sight distances when turning onto the roadway. Pullouts also tend to become focal points for unintended uses such as climbing and hiking. Some of these problem areas along Lake McDonald were removed during repaving in the 1990's. Additionally, these areas were not planned for today's larger vehicles (those that are within the vehicle restrictions). Some are also on the opposite side of the road from park attractions (Wild Goose Island Vista is one example), creating a hazard for pedestrians and traffic on the main roadway. Another problem is that the smaller pullout areas lack advanced signing and traffic controls, so visitors approaching pullouts are unaware of

vehicles slowing or pulling out. Finally, many pullout areas have not been designated or constructed as such, but have been created over time as “social pullouts” by visitors who pull off the road in these unregulated areas.

**Bicycle/Pedestrian Trails.** The lack of bicycle/pedestrian trails has generated complaints for some time. Most of the discontent stems from the fact that bicycle restrictions take place from 11:00 a.m. to 4:00 p.m. daily from June 15 through Labor Day between Logan Pass and Lake McDonald (traveling east, or uphill, only). These restrictions are in place because the roadway is not wide enough to safely accommodate both bicycles and motor vehicles on Going-to-the-Sun Road. Apgar is the only area in the park with a designated bicycle path, which runs to West Glacier. Lack of bike racks is also a problem, as they are provided at only a few developed areas within the park.



The lack of bicycle trails, along with bike restrictions between Logan Pass and Lake McDonald, are a common source of visitor complaints.

Although there is a lack of bicycle/pedestrian trails, there are many trails throughout the park dedicated solely to pedestrians. Glacier contains approximately 738 miles of trails, eight paved and 730 unpaved. The park also has other pedestrian accommodations. All major developed areas have walkways that lead from parking areas to attractions and visitor facilities. Also, there are short sections of sidewalk at most formal pullout areas and hiking trailheads. Most pedestrian crossing areas have been designated by painted crossings on the roadway and posting warning signs, with the exception of crowded areas such as Lake McDonald Lodge and Logan Pass. While a number of painted crosswalks exist, there are a very large number of areas where no painted markings exist, and there is very substantial, unregulated pedestrian traffic in many congested sections of the Road.

**Service Stations.** No service stations are available in the park. Service stations are scarce in the Glacier area, forcing visitors to plan ahead for gas and other services. Service stations are located in Coram (eight miles west of Glacier), East Glacier, St. Mary, Waterton Park, Polebridge, Babb, and seasonally at West Glacier.

**Comfort Stations.** Comfort stations are available throughout the park (Figure 4), and an inventory of the number of sites along Going-to-the-Sun Road follows. Comfort stations are also located in other areas of the park, in a limited capacity.



Comfort stations are located throughout the park. This one, which includes an exhibit area, is located on the East side of Going-to-the-Sun Road, about two miles west of Baring Creek.

- Apgar Village ..... 3
- Sprague Creek Campground ..... 1
- Lake McDonald Lodge and Ranger Station... 2
- Avalanche Creek ..... 2
- Logan Creek ..... 1
- The Loop ..... 1
- Logan Pass ..... 1
- Grizzly Point ..... 1
- Sun Point ..... 1
- Rising Sun picnic and launch ..... 2
- St. Mary area ..... 3

Some areas are not equipped with plumbing or electricity and have the more primitive types of facilities, while other areas are equipped with more modern amenities such as flush toilets.

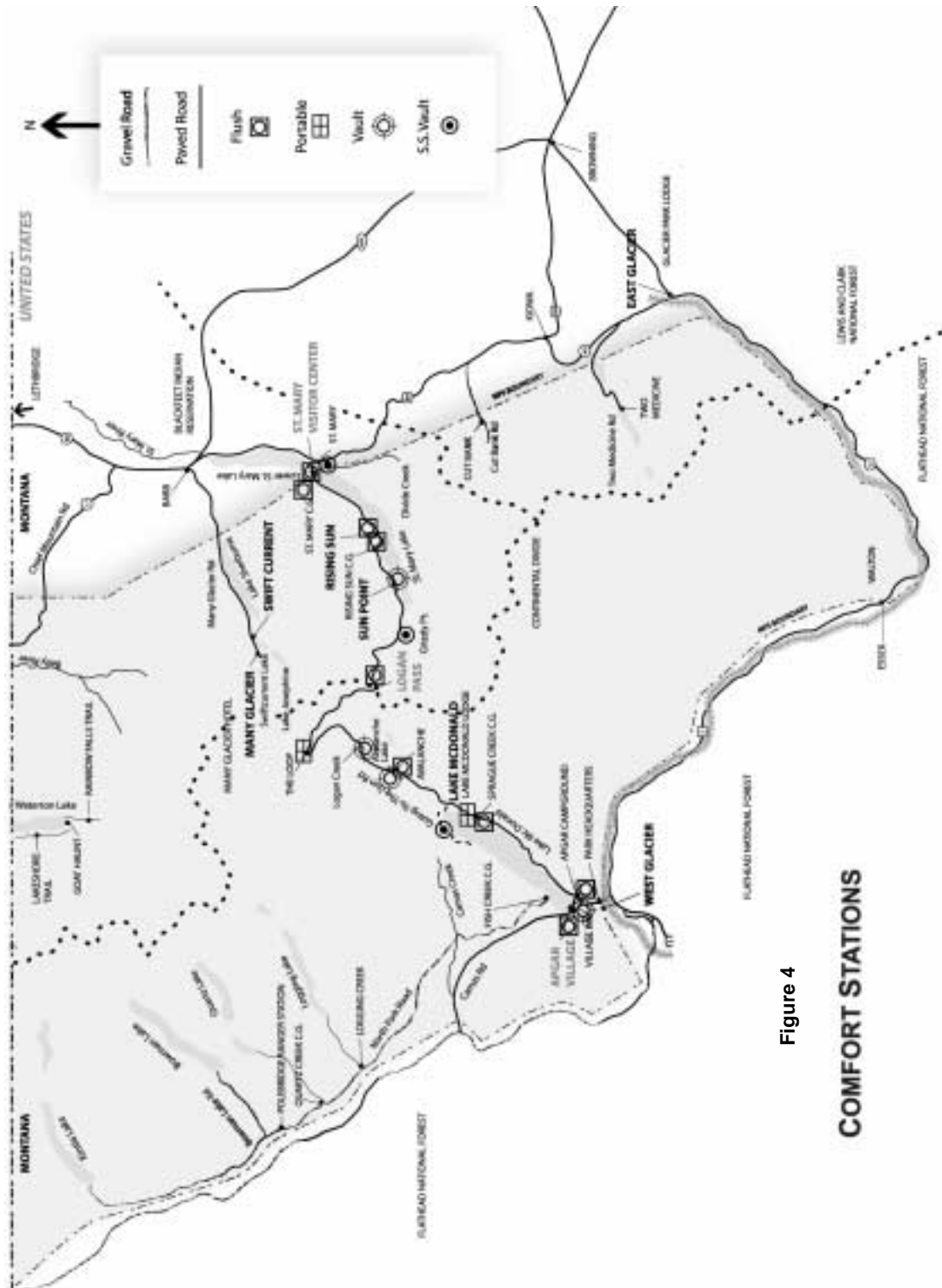


Figure 4

## COMFORT STATIONS

**Signs.** Signs are used for many different purposes in the park. The three main categories include traffic (warning and regulatory), directional/informational, and interpretive. An inventory of the traffic signage in the park includes 306 warning signs, 347 regulatory signs, and 477 directional/ informational signs (1,130 total). Interpretive signage in the park consists of 113 wayside exhibits throughout the park.

## Interpretation and Information

Throughout the park, interpretive guides are provided in the form of brochures, informational signs, maps, park staff, and guided walks, talks, and campfire programs. This information is distributed at trailheads; on trails; along the roadside at scenic, cultural, or historic areas; and in other areas where interpretation is a useful tool for the



visitor to learn more about the park. Interpretive wayside exhibits are abundant. Appendix F identifies and describes the interpretive opportunities within the park.

**Entry Gates.** During select seasons and hours of the day, entry gates are staffed by NPS personnel who can answer questions, and provide brochures and maps that describe different features and help the traveler navigate the park. Some entry gates are not staffed.



Signs provide interpretive data for visitors, as shown at Hidden Lake (above). They also provide directions (left) and reg-

**Orientation.** Orientation is provided at visitor centers, ranger stations, and entry gates in the form of brochures, maps, park staff, and signage.



**Radio Information.** There are two radio transmitters that provide traveler information for the park. These stations are broadcast from West Glacier and Saint Mary at 1610am.

## Transit Use

**Transit.** The current transportation system for the park is not subsidized by government sources, placing the financial burden on users of the system (GPI riders, for example). This has been recognized as one of the main reasons why the transportation system within and around the park is not used to its full potential. Capacities for the GPI tour and shuttle service include 33 vans that accommodate twelve passengers per vehicle. Maximum capacity for the entire service is 396 passengers.

**Other outside transportation sources.** (e.g. sources that transport visitors into the park from areas outside the park)

- **Rocky Mountain Transportation (RMT)** provides limited, on-demand shuttle service to the park. Four buses are dedicated to Big Mountain shuttle service (Snowbus), with capacities of 60 per bus. RMT has up to eighteen buses available for this service during peak periods.
- **Airport Shuttle Service/Kalispell Taxi** has fourteen vehicles including taxis and small transit buses – can accommodate as many as fourteen passengers per trip.
- **Flathead-Glacier Transportation Company** has ten, fifteen-passenger vehicles (total capacity 150 passengers).

Capacities for services such as Amtrak were not determined for this report, as the capacities would include an undetermined amount of people traveling to areas beyond Glacier.

## Transportation Indicators, Standards, and Monitoring

To describe indicators within the park, a discussion will first be laid out concerning the relationships between indicators, standards, and monitoring, as all three of these concepts must be considered.

**An indicator** is a type of measurement that could be used to determine the current level or use for an activity.

**A standard** is a specific level that is set and determined to be a minimum or adequate condition for the activity.

**Monitoring** involves measurements to determine whether the activities are remaining within the standards that have been determined.

To measure the capacity of the existing transportation system to accommodate use levels and to measure transportation impacts within the park, expectations and indicators must first be determined. For Glacier, this means determining LOS standards for roadways, parking lot capacities, etc., and measuring other factors that indicate adequate or inadequate capacities. Currently, no standards or indicators exist for LOS within the park. Transit and traffic counts are good tools for monitoring capacities of roadways and numbers of visitors to the park.

Especially when measured over time, trends indicate increases and decreases in visitation so that an appropriate plan of action can be taken to encourage more visitors or manage for exceeded capacities in the transportation system. Surveys are another useful indicator for determining whether or not transportation systems are at or over capacity. While surveys can be subjective in nature, an average of the overall opinion of visitors gives a good idea of whether the current system is adequate. While standards are difficult to set based on public sentiment and the park currently has no specific standards for any of these activities or services, it is possible that some sort of average or majority opinion could be used to set a guideline for standards. Monitoring for such activities involves the use of surveys over time to identify trends. Trends give the clearest and most representative idea of the functioning of existing transportation facilities.

The following table shows potential deficiencies of the transportation system within Glacier.

Table 4: Transportation System Deficiencies within Glacier National Park

Transportation Category and Type	Deficiency	Other comments
Transit System		
<ul style="list-style-type: none"> <li>All</li> </ul>	Does not provide good opportunities for people to leave car at any point in park	
	GPI primarily serves guests in lodging, not other park visitors	
	Inadequate service for day hikers	In many cases day hikers have no way to get from Point A to Point B unless they take a loop trail, leave cars in two areas, or hitchhike
	Parking lots not adequate for transit service	Limited staging areas for vehicles to park
	No scheduled service from airports, railway stations, and other areas outside of park	Regular service from Amtrak station
	Doesn't link well with other transportation systems in region	
	Encourages private vehicles	
	Not "easy"	
	Going-to-the-Sun Road shuttles too infrequent	
	Cost prohibitive	Average family cannot afford
	Ends too early	Daylight until 10:00 p.m. preferred
	Scheduled routes are limited and only give accessibility to certain areas of park (along Going-to-the-Sun Road)	Other areas only accessible by private vehicles
	Lacking employee shuttle for those who live in outlying communities	Numbers are very low for employees who might use this service
	Airport transportation, other than services by GPI, cannot be promoted by the park due to restrictions on advertisement of outside businesses, resulting in lack of knowledge of airport shuttle services by visitors	
	Schedules not dependable	
	Limited capacities	

Table 4: Transportation System Deficiencies within Glacier National Park (Continued)

Transportation Category and Type	Deficiency	Other comments
	Not all vehicles are ADA-compliant	
• Roadways	Congestion on Going-to-the-Sun Road	
	Going-to-the-Sun Road has structural and maintenance problems, insufficient widths, congestion during peak periods	
	Traffic counting systems inadequate	
• Parking/ Pullouts	Not enough parking areas or spaces	Many areas have inadequate parking spaces for volumes of visitors at those areas
	Areas not well managed within the park	
	Some are dangerous	Parking on opposite side of road as attraction – Avalanche, Sunrift Gorge, the Loop, Wild Goose Island, etc.
	Location of parking areas funnels all visitors to same locations, creating over-crowding	
	Pullout areas are not clearly designated	
• Pedestrian/ Bike Paths: Frontcountry	In poor condition/dilapidated	
	Inaccessible for mobility impairments	
	Not enough paths/mileage	
	Serves limited number of people/types of groups	Serves mostly employees and people in campgrounds
	Use along Going-to-the-Sun Road is dangerous	
	Trail to Apgar is confusing, as it goes through employee housing area	
	Not enough short, easy trails on West Side for those with children or problems with altitude	
• Pedestrian/ Bike Paths, Backcountry	Have eliminated several miles which puts others in higher demand	
	Not all maintained, leading to higher use on maintained trails	Some visitors would like all to be maintained
	Lack of funding	

Table 4: Transportation System Deficiencies within Glacier National Park (Continued)

Transportation Category and Type	Deficiency	Other comments
	Conflicts between shared use of hikers and horses	Some visitor complaints
• Interpretation and Viewing Areas on Roadside	Not enough info on next place to stop if parking areas or pullouts are full	
	Not enough	
	Need more interactive interpretation that requires better technology	
Transportation Restrictions		
• Vehicle	Enforcement	
	More roadways in park need vehicle restrictions	e.g. North Fork area
• Bicycle	Enforcement	
	Interface on Going-to-the-Sun Road dangerous between vehicles and bicycles	Roadway too narrow
• Winter Closures	Not open long enough	Due to lack of funding
	Boundary of closure has been expanded too much	Recently was taken back to Lake McDonald Lodge
• General	No set indicators or standards for transportation system	

## Visitor Use at Glacier

### Visitor Experience in Glacier

The visitor experience at Glacier is defined by the geographic area, visitor use zone, specific attraction, and type of visitor. In an attempt to create a more structured definition of visitor experience for Glacier, the General Management Plan (GMP) defined four management zones, six geographic areas in which to apply those management zones, and the type of experience that each visitor could potentially have at each location. This concept has been expanded for the purposes of this report. This report will summarize the purpose, significance, primary interpretive themes, management zones and geographic areas from the GMP, and will use the same types of experience outlined there. In addition, key visitor locations will be identified for each geo-

graphic area, with the type of experience and/or specific ideas for visitor experience taken from the GMP, as well as from Glacier staff input.

In order to understand the visitor experience within Glacier, one must first understand the purpose and significance of the park, as well as the primary interpretive themes available to all visitors. The main categories of visitor experience have been taken from the GMP and summarized in this section. For a more detailed description of the visitor experience categories, please refer to the GMP.

## **The Purpose, Significance, and Primary Interpretive Themes of Glacier National Park**

### **The Purpose of Glacier National Park**

Glacier has many outstanding characteristics that set it apart from any other geographic region in the United States, and from any other national park. These characteristics also give the park a special sense of purpose that makes it unique. In fact, Glacier has many distinctive purposes as a national park which should be given the utmost consideration when making important decisions about its future. These purposes are:

- Preserve resources for all
- Allow for visitor appreciation
- Allow for celebration of international goodwill
- Conserve beauty and all that the park holds
- Preserve and protect natural and cultural resources
- Provide opportunities to enjoy all that the park has to offer
- Offer high quality services
- Balance management of the natural state of the park with visitor services and facilities

## **The Significance of Glacier National Park**

Glacier holds a great level of significance on many levels: as a national park, as a national symbol for natural and cultural beauty and importance, and as a national symbol of peace. The park is or contains:

- Cultural and historic resources
- Geologic and physical characteristics
- Ecological variety
- Spiritual value
- Rich human history
- Recreational opportunities
- International Peace Park

## **Primary Interpretive Themes of the Park Which All Visitors Should Understand**

Glacier encompasses many separate and distinctive themes, all of which can be interpreted for the visitor. This interpretation is important because an understanding of these themes ensures a more enjoyable and enriching park experience. These themes are described below.

- Geologic processes
- Wilderness experience
- International Peace Park
- American Indian relations
- Ecosystem functions
- Historical features
- Biological diversity

## Visitor Experience for Each Area of the Park

The objectives of the visitor experience become clearer with an understanding of the purpose and significance of Glacier and its primary interpretive themes. To better define and describe these objectives, visitor experience is broken down into visitor management zones and types of experience. These are categorized under six designated geographic areas, and further broken down into key visitor locations within each geographic area. The purpose of this categorization is to define the visitor experience as specifically as possible for each key visitor location within the park. This detailed information will provide a better basis for recommendations made within this Plan. Visitor experience will then not only be defined, but a plan can be developed and implemented that will ensure the desired visitor experience is achieved throughout the park.

### Visitor Management Zones

While the overriding goal is to maintain and enhance the wild areas and natural beauty of the park, maintenance of traditional visitor services and facilities will continue to be a part of the overall management objectives as well. In light of this, four distinct visitor management zones have been created as part of the GMP, and they are described in terms of the characteristics for which they will be managed. Each of the four zones has a different set of desired resource conditions, visitor experiences, types of management activities, and development.

The following zone descriptions are summarized directly from the GMP.

**Visitor Service Zone.** The visitor service zone includes developed areas, paved roads, and campgrounds with potable water and sanitation facilities.

**Rustic Zone.** The rustic zone includes primitive facilities and campgrounds representative of early western national park development and traditional visitor experiences in them.

**Day Use Zone.** The day use zone includes selected areas generally with specific destinations that visitors could reach easily within a day from visitor use zones.

**Backcountry Zone.** Management of natural resources in the backcountry zone focuses on protection and (when necessary) restoration of resources and natural processes.



## Type of Experience

Within each management zone described above, there are different types of activities and experiences. These have been categorized and described below to provide a better understanding of the visitor experience within each zone. These descriptions are intended to add more detail to the visitor management zones.

**Service/Use of Facilities.** Some areas of the park provide services and facilities for visitors such as visitor centers, information, comfort stations, food, gifts shops, etc. Visitors stop in these areas for many different reasons.

**Scenic.** Many areas of the park offer beautiful vistas and magnificent scenery for the visitor. Some of the diverse scenery in the park includes crystalline lakes, ice age alpine glacial features, some of the largest and most visible overthrust faults in North America, and numerous breathtaking views from the Going-to-the-Sun Road. Some of these areas are less accessible and require driving on a remote dirt road, or hiking several miles. Other areas can be seen from a visitor's vehicle while driving on a main roadway such as Going-to-the-Sun Road. Many visitors have stated that viewing the scenery is the primary reason they visit the park.

**Wilderness.** Because over 95 percent of the park area has been proposed for wilderness area designation, a wilderness experience can be found in most areas of the park. This can include wildlife viewing, the opportunity to see many different types of ecosystems in one area, the opportunity for ecological management and research, and the opportunity to experience true wilderness areas. One does not have to travel far to have a natural experience in the park.

**Cultural/Historical.** The park lays claim to various cultural and historical resources. Historic structures abound, including hotels and high country chalets, Going-to-the-Sun Road and others. Tribes such as the Blackfeet and Salish-Kootenai use the park as a spiritual place. Glacier is said to have spiritual value for all human beings as a place to nurture, replenish, and restore themselves. The park also chronicles the rich history of prehistoric peoples, American Indians, early explorers, railroad development, and modern use and visitation.

**Recreational.** Recreation is also a major attraction for those visiting the park. Over 730 miles of hiking trails, numerous lakes and rivers for various water sports, modern and primitive campgrounds, picnic areas, and recreational tours provide almost any

type of recreational experience that a visitor could want. Recreational experiences can range from guided group tours to unique and solitary backcountry hikes.

**Cooperative.** In addition to the many services and experiences provided in the park, the shared border with Canada creates a unique opportunity for visitors to visit two countries as they share an International Peace Park. Visitors can witness the cooperative management with which both countries operate these parks. This opportunity demonstrates the peace that can be achieved between two nations, especially for those visiting from countries with conflict and strife.

**Interpretive.** Glacier provides many interpretive opportunities through visitor centers, brochures, exhibits, guided walks and talks, signs, and waysides. These opportunities teach the visitor more about the park in terms of history and culture, management, physical characteristics, and other factors that make the park unique. This knowledge can lead to a better understanding of why certain decisions are made within the park, as well as creating a sense of ownership and pride in the park. Interpretive services are offered in many areas of the park.

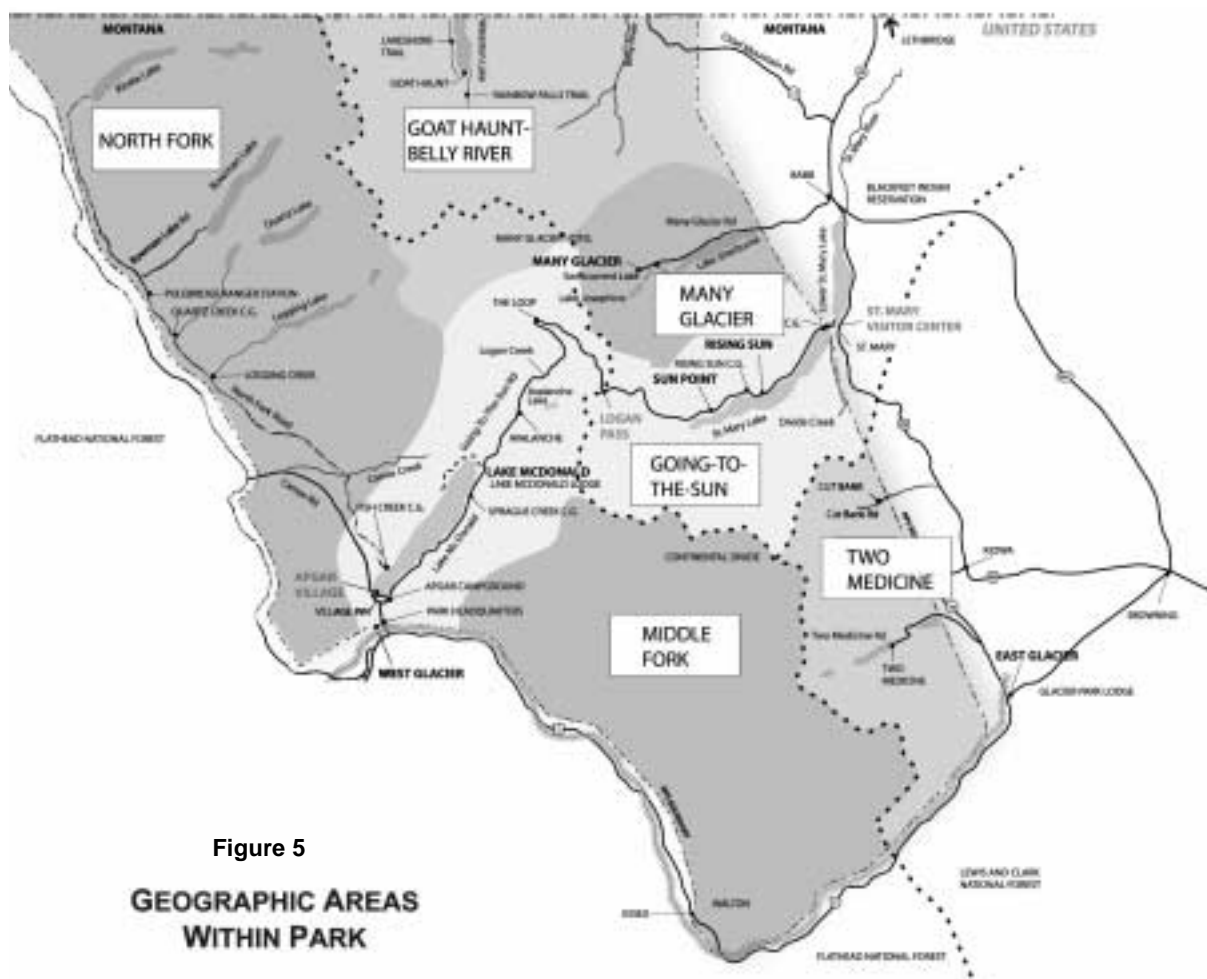
### Geographic Areas within Glacier National Park

In the GMP, six areas have been identified within Glacier based on the resources in each area, as well as their geographic location. There is a different management philosophy for each area, and a visitor experience has also been established for each in the GMP. These geographic areas are as follows (see Figure 5):

- Many Glacier
- Goat Haunt-Belly River
- Going-to-the-Sun Road Corridor
- Two Medicine
- Middle Fork
- North Fork

## Visitor Management Zones and Types of Experience for Each Geographic Area and Key Visitor Area within the Park

Now that the general concepts of visitor experience have been defined, they can be brought together to illustrate specific visitor experiences for each geographic area, as well as key visitor locations that have been identified by the GMP and park staff within those areas. These areas are identified to provide more detail and a clearer understanding of visitor experience throughout the park. It should be noted that the visitor experiences listed for each area are not necessarily what each visitor is *currently* experiencing, but rather, the objectives for visitor use and resource conditions throughout the park. The GMP provides more detail about the visitor management zones in each geographic area.





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*The management philosophy of the Many Glacier area emphasizes preserving its wild character, while providing visitors with opportunities to experience such activities as wildlife observation, hiking, camping, and sightseeing. Nationally significant historic resources would be preserved and managed to maintain the grand hotel and family lodge traditions.*

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## **Many Glacier**

The Many Glacier area would be managed to prevent degradation of resources, such as high quality wildlife habitat that includes winter range, by minimizing conflicts with visitor use. Swiftcurrent and the Many Glacier Hotel would be managed to provide traditional visitor services and support services for the NPS and concession operations. Some areas would be managed for high levels of visitor service, while the rest would focus on providing greater solitude and fewer visitor encounters. The area would be divided into a visitor service zone and a backcountry zone.

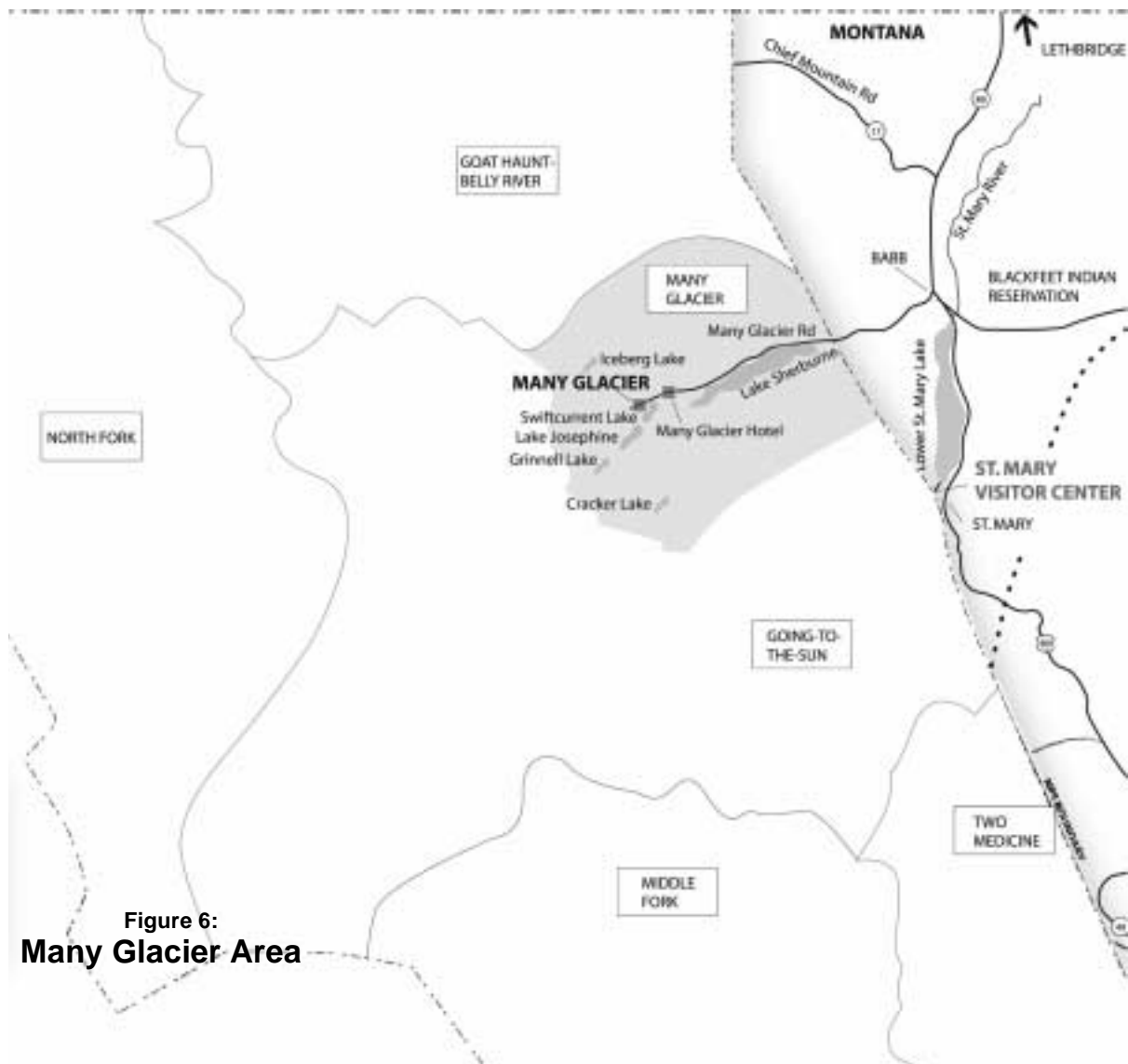


Figure 6:  
Many Glacier Area

### Key Visitor Areas and the Visitor Experience

#### **Many Glacier Hotel** (visitor service zone)

- Services/Facilities: traditional services (meals, overnight accommodations, store), services for NPS and concession operations
- Cultural/historic: historic structure

**Swiftcurrent Motor Inn** (visitor service zone)

- Services/Facilities: traditional services (meals, overnight accommodations, store)

**Lake Sherburne** (visitor service zone)

- Scenic
- Recreational: fishing (no road access to shoreline – dam controlled)



Many Glacier Hotel, in the Visitor Service Zone, is a popular historic structure.

**Swiftcurrent Lake and trails** (visitor service zone)

- Scenic
- Recreational: hiking, boat tours and rentals, and horseback rides nearby
- Interpretive: guided hikes

**Josephine Lake and trail** (visitor service zone)

- Scenic
- Recreational: hiking, boat tours, and horseback rides nearby
- Interpretive: guided hikes

**Grinnell Lake** (visitor service zone)

- Scenic
- Recreational: hiking, and horseback rides, backcountry campground just beyond day use zone but at Lake
- Interpretive: guided hikes

***Cracker Lake*** (day use zone)

- Scenic
- Recreational: hiking and horseback rides
- Interpretive: guided hikes

***Iceberg Lake*** (day use zone)

- Scenic
- Recreational: hiking and horseback tours
- Interpretive: guided hikes and exhibits



Ranger S. Buchel shares information and a campfire with Glacier visitors during a guided hike.

***Backcountry*** (backcountry zone)

- Scenic
- Natural: wildlife observation, “leave no trace” ethics encouraged
- Recreational: hiking and backcountry camping



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*The management philosophy of the Goat Haunt-Belly River area focuses on its international importance to park visitors, its wild character and wildlife, and the shared natural and cultural resources of adjoining nations. As in other areas of the park, management actions would emphasize cooperation and coordination in the spirit of the International Peace Park, World Heritage Site, and Man and the Biosphere designations.*

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## **Goat Haunt-Belly River**

This area would be managed to protect its resources, such as the pristine character of the area and the integrity of biologic communities. No overnight accommodations or food services would be provided in this area. Boat landings, visitor orientation, information and interpretation services, backcountry access, and administrative facilities would be available at Waterton Townsite (not in project area), at Goat Haunt, and along the Chief Mountain Highway. The International Peace Park and World Heritage Site values would be emphasized as primary interpretive themes because of the northern boundary on the Canadian border. This area would be divided into a visitor service zone and a backcountry zone.



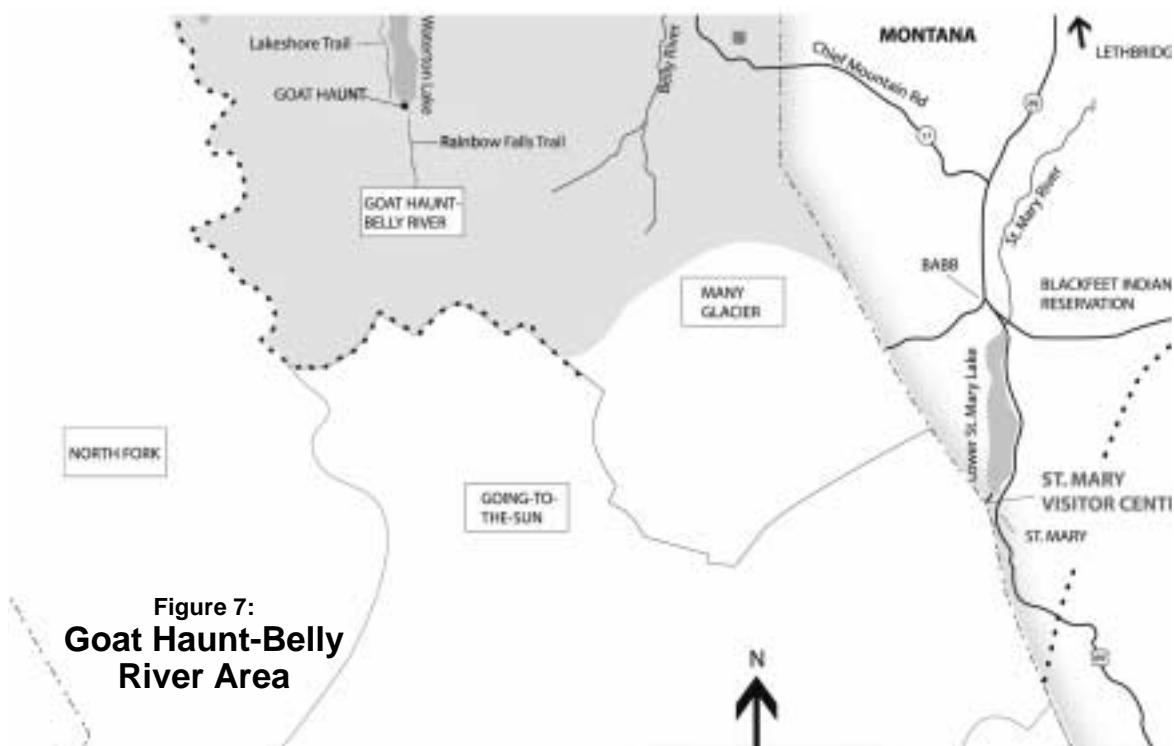


Figure 7:  
Goat Haunt-Belly  
River Area

## Key Visitor Areas and the Visitor Experience

### **Goat Haunt** (visitor service zone)

- Services/facilities: comfort station, ranger station, staging area for access to surrounding backcountry
- Scenic
- Cultural/historical: shared cultural resources of the U.S. and Canada, displayed in exhibits
- Recreational: boat tours, hiking, and camping
- Cooperative: customs and immigration entrance point
- Interpretive: kiosks, exhibits, and personal services

### **Chief Mountain Highway** (visitor service zone)

- Services/facilities: staging area for access to surrounding backcountry
- Cultural/historical: Blackfeet history in area
- Cooperative: customs and immigration
- Interpretive: kiosks and exhibits

***Waterton Lake*** (visitor service zone)

- Services/facilities: full range of services
- Scenic
- Recreational: boat tours and water sports
- Interpretive: boat tours

***Lakeshore trail*** (visitor service zone)

- Recreational: hiking
- Interpretive: guided hikes

***Rainbow Falls trail*** (visitor service zone)

- Recreational: hiking
- Interpretive: guided hikes

***Belly River Ranger Station*** (backcountry zone)

- Scenic
- Natural: “leave no trace” ethics encouraged
- Recreational: hiking, horseback riding, and backcountry camping

***Backcountry*** (backcountry zone)

- Scenic
- Natural: “leave no trace” ethics encouraged
- Recreational: hiking, horseback riding, and backcountry camping



Spectacular Waterton Lake, from the Goat Haunt overlook



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*The Going-to-the-Sun Road corridor would be managed to provide all visitors with an opportunity to experience the scenic majesty and historic character of the park through a wide range of visitor activities, services, and facilities. The cultural significance and traditional use of Going-to-the-Sun Road would be emphasized.*

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### **Going-to-the-Sun-Road Corridor**

This area would be managed to protect the tremendous biological diversity found in this corridor to ensure its overall integrity, which encompasses all park eco-regions. Visitor services would also be emphasized at Apgar Village, Lake McDonald Lodge, Rising Sun, and in the vicinity of St. Mary. Traditional, more rustic accommodations would be provided at Sperry and Granite Park Chalets. Because of its designation as a National Historic Landmark, the Going-to-the-Sun Road would be managed to pre-

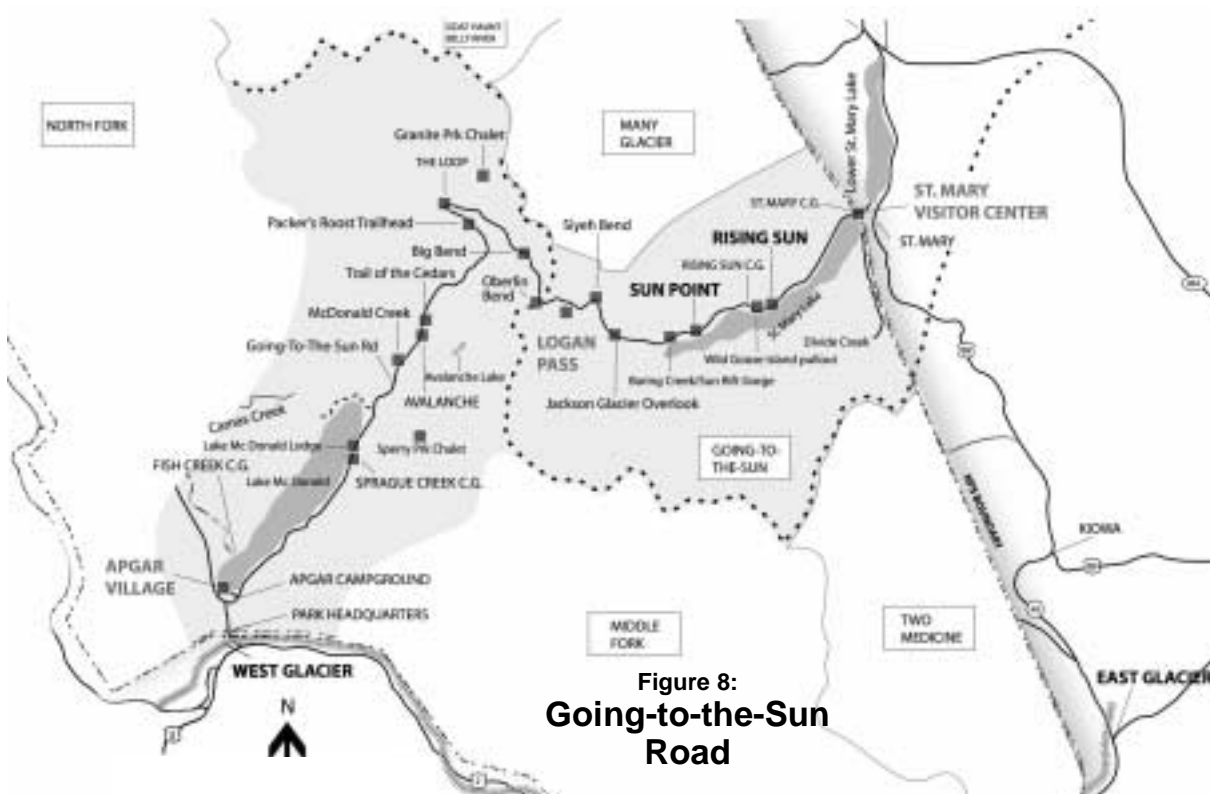


Figure 8:  
Going-to-the-Sun  
Road

serve the historic character so that visitors can enjoy this aspect as well as the magnificent scenery along the roadway. The Going-to-the-Sun Road would be divided into a visitor service zone, a day use zone, and a rustic zone.

For many visitors, Going-to-the-Sun Road is the main attraction to the park. A full range of visitor experiences is available on the Road, including magnificent scenic views offered nowhere else in the world.

### Key Visitor Areas and the Visitor Experience

#### **Apgar** (visitor service zone)

- Services/facilities: full range of services, visitor center, heavy use
- Recreation: hiking, camping, picnicking, and boat rentals, horseback riding
- Interpretive: visitor center and exhibits

**Lake McDonald** (visitor service zone)

- Scenic: immensity of lake with mountain backdrop
- Natural: unique cedar hemlock forest
- Recreational: boating and fishing
- Interpretive: interpretation for lake, park-wide wildlife and resources, guided boat tours

**Lake McDonald Lodge** (visitor service zone)

- Services/commercial: full range of services, “traditional rustic hunting lodge experience”
- Cultural/historical: historic structure
- Recreational: hiking, boating, fishing, and horseback riding

**Sperry and Granite Park Chalets and access trails** (day use zone)

- Services/facilities: traditional accommodations (Sperry – full service; Granite – bring your own)
- Cultural/historical: national landmark status
- Recreational: hiking and horseback riding
- Interpretive: guided walks

**McDonald Creek** (visitor service zone)

- Scenic
- Natural experience: Upper McDonald Creek close by harlequin ducks
- Recreational: hiking, horseback riding

**Avalanche** (visitor use zone)

- Recreation: trailhead, camping, and picnicking

**Trail of the Cedars** (visitor service zone)

- Recreation: hikes for all levels of users, accessible
- Interpretive: guided walks

**Avalanche Lake** (visitor service zone)

- Scenic: mature scenic hemlock forest
- Recreational: hiking and fishing
- Interpretative: guided walks

***Packer's Roost Trailhead*** (rustic zone)

- Recreational: hiking, difficult accessibility, horseback riding

***The Loop*** (visitor service zone)

- Scenic: Going-to-the-Sun Road driving experience and surrounding area
- Recreational: hiking

***Big Bend*** (visitor service zone)

- Scenic: Going-to-the-Sun Road driving experience and surrounding area
- Cultural/historic: historic roadway

***Oberlin Bend*** (visitor service zone)

- Scenic: Going-to-the-Sun Road driving experience and surrounding area
- Natural: mountain goat viewing
- Cultural/historical: describes history of Going-to-the-Sun Road as it was built



Logan Pass Visitor Center offers a comfort station, books, and film, along with interpretive exhibits.

***Logan Pass*** (visitor use zone)

- Services/facilities: comfort station, books and film, visitor center
- Scenic: Going-to-the-Sun Road driving experience and surrounding area
- Natural experience: subalpine area, wildflower displays, mountain goats, bears
- Recreational: hiking
- Interpretive: visitor center, exhibits

***Siyeh Bend*** (visitor service zone)

- Scenic: Going-to-the-Sun Road driving experience and surrounding area
- Cultural/historical: Native American history
- Recreational: hiking

**Jackson Glacier Overlook** (visitor service zone)

- Scenic: major glacial view
- Recreational: hiking (Gunsight Pass trailhead)



**Baring Creek/Sunrift Gorge** (visitor service zone)

- Natural experience: unique geologic processes
- Recreational: hiking

**Sun Point** (visitor service)

- Recreational: hiking, horseback riding

**Wild Goose Island pullout** (visitor service)

- Scenic



**Rising Sun** (visitor service zone)

- Services/facilities: full range of services
- Recreation: camping, boat access, and picnicking
- Interpretive: guided boat tours

**St. Mary Lake** (visitor service zone)

- Services/facilities: lake itself
- Scenic: Front Range
- Natural: wildlife viewing
- Recreational: boating and fishing

**St. Mary Visitor Center** (visitor service zone)

- Services/facilities: comfort stations, visitor center
- Interpretive: visitor center and exhibits



More spectacular views await the visitor at Wild Goose Island Vista (top) and St. Mary (center). St. Mary Visitor Center (bottom) offers interpretive exhibits, in addition to a comfort station.

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*The management philosophy of the Two Medicine area focuses on preserving its culturally significant resources, wild character, and important wildlife habitat. Frontcountry and backcountry camping would continue. Traditional visitor services would be available in the Two Medicine Valley.*

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## Two Medicine

The Two Medicine area would be managed to protect resources such as the wild character of the area, particularly the area of transition between the plains and the mountains. The area is developed, but it is small and would not provide all services. This area would be divided into a visitor service zone, a rustic zone, and a backcountry zone.

### Key Visitor Areas and the Visitor Experience

#### **Two Medicine** (visitor service zone)

- Services/facilities: range of services available, administrative functions; no overnight accommodations except campground

#### **Two Medicine Lake and trails** (visitor service zone)

- Scenic
- Recreation: hiking, camping, picnicking, boat tours and rentals (ten horsepower engines or less)

#### **Two Medicine Chalet/camp store** (visitor service zone)

- Cultural/historical



**Upper Two Medicine Lake**

(visitor service zone/ backcountry zone)

- Scenic
- Recreational: hiking (expansive trail system), camping, and non-motorized boating (no road access – boats must be carried)
- Interpretive: guided hikes, signs, and exhibits

**Lower Two Medicine Lake**

(visitor service zone)

- Services/facilities
- Recreational: boating

**Cut Bank Ranger Station and campground**

(rustic zone)

- Scenic: “among the least visited yet most beautiful places in the park”
- Recreational: trailhead and camping
- Interpretive

**Running Eagle Falls** (visitor service zone)

- Cultural/historical: history of female warrior, Running Eagle
- Recreational: hiking (ADA trail)
- Interpretive: guided hikes and exhibits

**Backcountry** (backcountry zone)

- Natural: “leave no trace” ethics encouraged
- Recreational: hiking, backcountry camping, and horseback riding

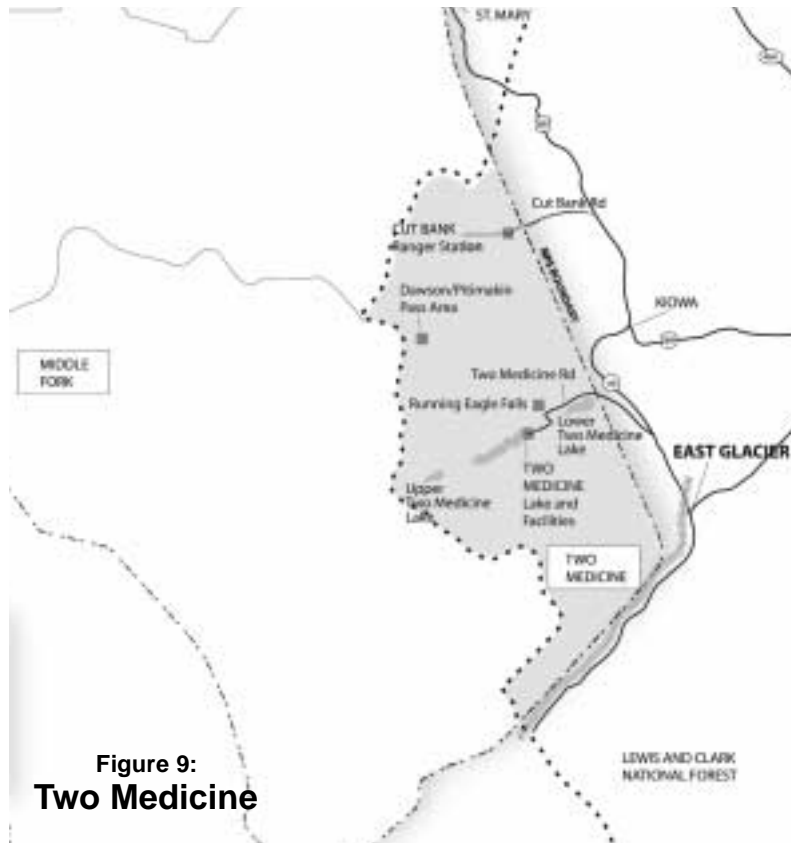


Figure 9:  
**Two Medicine**



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*The management philosophy for the Middle Fork area emphasizes preserving its remote and wild character through a range of primitive visitor experiences. Visitor and administrative facilities would occur only along US Highway 2.*

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## **Middle Fork**

This area would be managed to preserve the remote and pristine character of its resources. Visitor access and trail facilities would be limited and challenging in most of the area. Developments allowed in the backcountry would include trails, sanitation facilities, hitching posts, primitive signs, patrol cabins, and campsites. Key wildlife areas and travel corridors would be protected and interpreted through cooperation with others where appropriate. The Walton Ranger Station would serve the management and visitor needs of the area. A portion of the backcountry would be managed to allow for camping in undesignated areas, and to provide more opportunities for off-trail travel. This area would be divided into a visitor service zone and a backcountry zone.

## Key Visitor Areas and the Visitor Experience

### **US Highway 2 corridor** (visitor service zone)

- Services/facilities: information
- Recreational: sight-seeing
- Interpretive

### **Walton Ranger Station** (visitor service zone)

- Services/facilities: information and comfort station
- Recreational: picnicking, hiking, and horseback trailhead
- Interpretive: exhibits

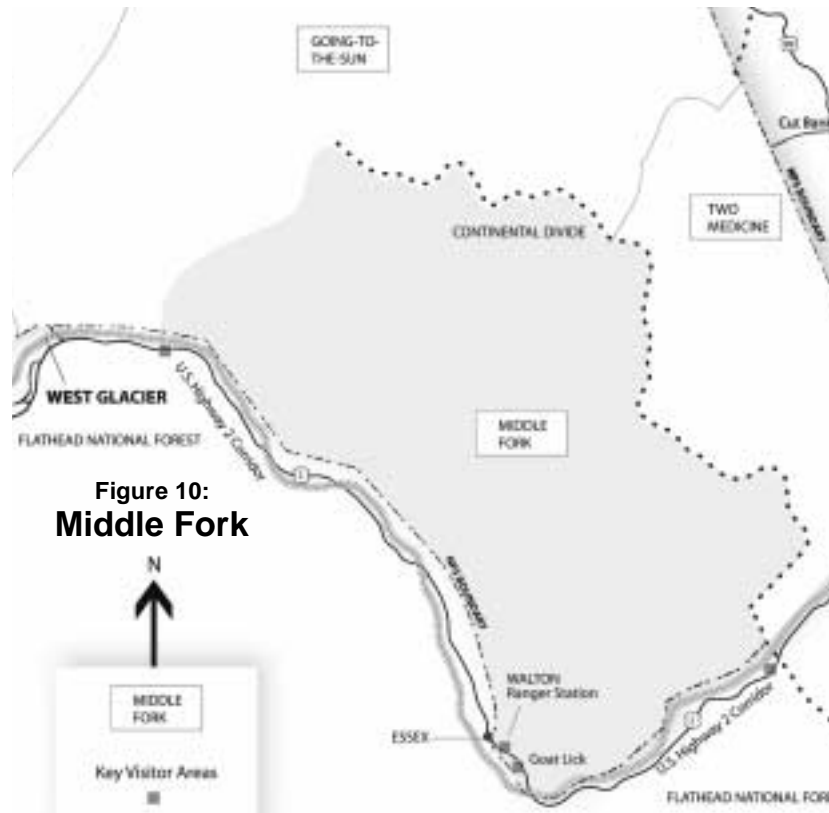


Figure 10:  
**Middle Fork**

### **Goat Lick** (visitor service zone)

- Services/facilities: information
- Scenic
- Natural: wildlife viewing, Wild and Scenic River
- Recreational: hiking and camping, picnicking
- Interpretive: exhibits

### **Backcountry** (backcountry zone)

- Natural: "leave no trace" ethics encouraged
- Recreational: hiking, horseback riding, and backcountry camping



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*The management philosophy for the North Fork area would preserve its contribution to the integrity and primitive character of the transboundary watershed. Management actions would reflect the importance of inter-agency and international cooperation. Visitor facilities would be rustic and would preserve a national park quality and style of development that has become increasingly rare. Management actions would preserve that primitive character.*

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## North Fork

This area would be managed to preserve its wild character and the important linkage to the entire North Fork Valley, including the Canadian portion, for wildlife conservation. Commercial development or new commercial activities would not be permitted. Small, primitive auto campgrounds would continue at Kintla Lake, Quartz Creek, Bowman Lake, and Logging Creek. The inside North Fork Road would remain narrow and unpaved. This area would be divided into a visitor service zone, a rustic zone, and a backcountry zone.

## Key Visitor Areas and the Visitor Experience

**Polebridge Ranger Station** (visitor service zone)

- Services/facilities: comfort station, information
- Interpretive: exhibits

**Kintla Lake** (rustic zone/backcountry zone)

- Recreational: hiking, camping, and non-motorized boating

**Bowman Lake** (backcountry zone)

- Recreational: trailheads, camping, picnicking, and boating (ten horsepower engines or less)

**Roads to Bowman and Kintla Lakes** (rustic zone)

- Interpretive: exhibits and waysides

**Quartz Creek** (rustic/backcountry zone)

- Recreational: hiking and camping

**Logging Creek** (rustic/backcountry zone)

- Recreational: hiking and camping

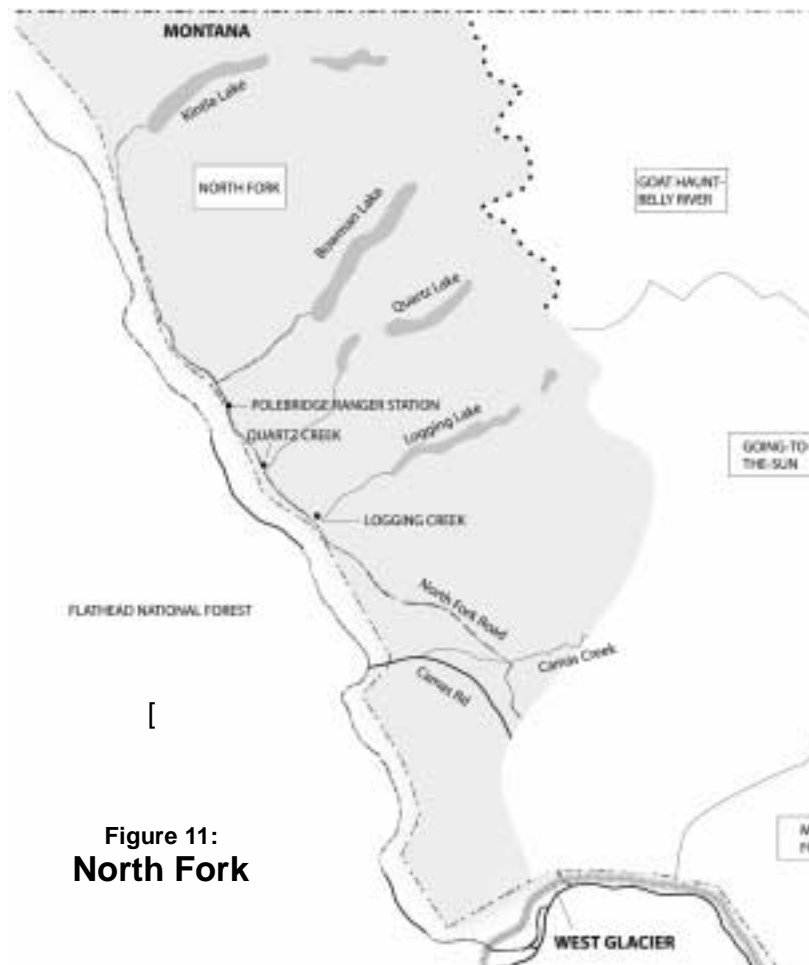


Figure 11:  
North Fork



Mountains,  
meadows, and wide  
blue skies in the  
North Fork section

***Camas Road corridor*** (visitor service zone)

- Services/facilities: information
- Recreational: trailheads
- Interpretive: exhibits

***North Fork Road*** (rustic zone)

- Recreational: hiking and bicycling

***Backcountry*** (backcountry zone)

- Natural experience: “leave no trace” ethics encouraged, wildlife viewing, riparian areas
- Recreational: hiking and backcountry camping

## **Visitor Use Statistics/Information**

**Total Visitors.** The following figures represent current (2000) data for Glacier visitation.

- Total visitors in 2000: 1,729,000
- High volume months: 60 percent of visitors come during July and August
- Total visitors in July, 2000: 515,000
- Total visitors in August, 2000: 523,000
- Average daily visitation in July and August: 16,700
- Percent of visitors from the state of Montana: plus or minus 19 percent

Figure 12 shows annual visitation at Glacier from 1979 through 2000, illustrating recent trends in park visitation.

Recent trends for visitation are somewhat erratic, but overall steady increases and decreases have taken place with the exception of the mid-1980's, which shows an abrupt increase in visitation from 1982 to 1983 of about 600,000 visitors.

Abrupt decreases also take place for two years after this period. Another large decrease takes place from 1994 to 1995, which might be attributed to a tunnel washout. The washout led to one-lane traffic and slow-moving traffic conditions. The road also opened later than usual that year, possibly adding to the decline.

Figure 13 shows seasonal fluctuations for visitation. These fluctuations are generally consistent from year to year. The data shown are from 2000.

**Visitor Use Profile.** A survey of visitors was conducted in 2000 (see *Glacier National Park Survey of Visitors, Coley/Forrest, 2000*<sup>1</sup>). Table 5 provides demographic information from this survey on visitors to Glacier.

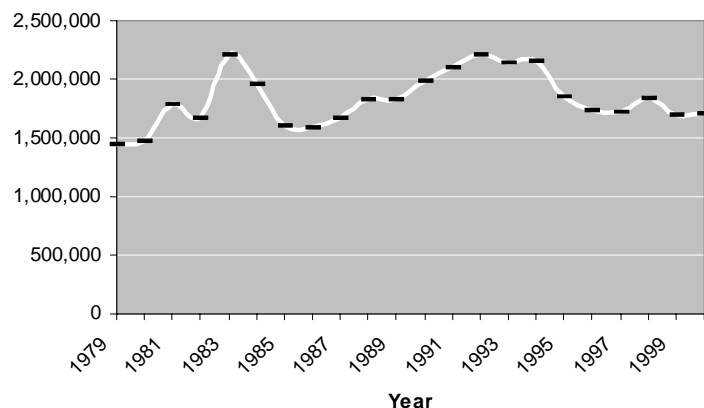


Figure 12: Glacier National Park Annual Visitation, 1979-2000

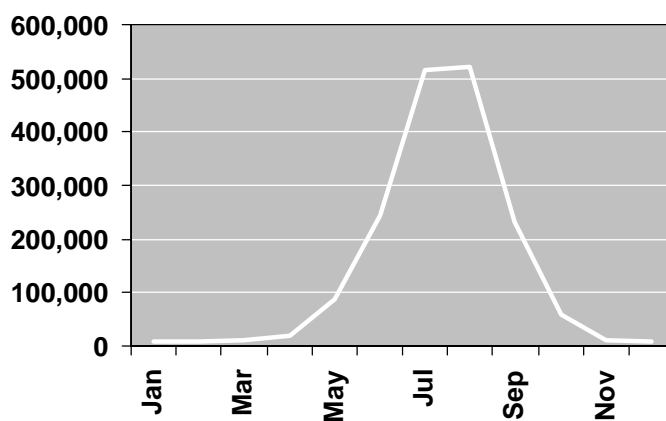


Figure 13: Glacier National Park, Seasonal Fluctuations in Visitation, 2000

1. Complete results of the *Glacier National Park Survey of Visitors* prepared by Coley/Forrest, 2000 are contained in Appendix A of the Going-to-the-Sun Road Socioeconomic Report.

**Table 5: Demographic Information of Respondents from**  
*Glacier National Park Survey of Visitors*

Demographic Information	
<b>Average Age</b>	50
<b>Sex</b>	55% Female 45% Male
<b>Income</b>	< \$25,000 (11%) \$25,000 - \$50,000 (23%) \$50,000 - \$75,000 (22%) \$75,000 – \$100,000 (18%) \$100,000 - \$150,000 (13%) >\$150,000 (13%)
<b>Education Level</b>	74% college-educated
<b>Occupation</b>	38% Professional 21% Retired 9% Managerial 32% Other (all other categories do not exceed 7% individually)
<b>Address</b>	90% from U.S. 10% from foreign country 19% of total from MT
<b>Average Travel Party Size</b>	2.83
<b>Average Daily Expenditures</b>	\$200

**Visitor Activities and Preferences.** The following figures represent current (1999-2000) data on visitor activities or preferences within Glacier:

- 11 percent spent nights camping in one of Glacier’s thirteen campgrounds.
- More than 29,800 person nights were spent in the backcountry.
- 6 percent participated in guided walks, talks, and campfire programs.
- 40 percent were received at Glacier visitor education centers.
- 85 percent stopped in the Logan Pass area.



For the survey of visitors 1,407 respondents were asked to state their *primary* reason for visiting the park on that particular trip. The results were as follows:

- 63 percent to view the scenery
- 16 percent to participate in recreation (hiking, biking, boating, camping, etc.)
- 7 percent other
- 5 percent to get away from the normal routine
- 4 percent to enjoy family and/or friends
- 3 percent to view wildlife
- 2 percent to take photographs

**Length of Visit.** The average number of days spent in the park by each group is four. The average number of nights spent in the park is also four. Number of days and nights spent in the park break down as follows:

**Table 6: Time Spent in Glacier National Park**

	Total Days or Nights					
	0	1	2	3	4-5	6+
Spent the day	-	34%	20%	14%	15%	17%
Spent the night	32%	14%	16%	9%	15%	14%

**Visitor Perceptions/Satisfaction Levels.** The 2000 *Survey of Visitors* also gathered information about preferences for specific types of facilities in Glacier, asking what types of services or facilities visitors would like to see more (or less) of, and what services or facilities would induce them to stay longer. Results from 1,319 respondents are as follows:

**Table 7: Visitor Preferences for Services and Facilities**

Service or Facility	Would like to see. . .	Would induce a longer stay
More stops along the road	24%	-
More informational signs and viewing areas	21%	24%
More hiking trails	18%	32%

**Table 7: Visitor Preferences for Services and Facilities**

Service or Facility	Would like to see. . .	Would induce a longer stay
More bike trails	11%	17%
More planned or guided tours	11%	19%
More/better services	9%	13%
Less expensive services	-	30%
More/better lodging	8%	17%
Less expensive lodging	-	29%
Less services and facilities	7%	-
More activities for children	5%	9%
More campgrounds	-	16%
None	29%	-
Other	21%	18%

**Percent of visitors to different areas of the park.** The 2000 *Survey of Visitors* inquired about visitor travel to different areas of the park and amounts of time spent at each area. This included specific areas along the Road and other geographic areas. The results are shown in Table 8.

**Table 8: Time Spent in Specific Areas Along the Road**

Area	Percent of respondents who stopped	Highest % of respondents and length of time stopped
Apgar	48 %	28% 15-30 minutes
Lake McDonald	63 %	25% 15-30 minutes
Avalanche	40 %	32% 1-4 hours
McDonald Creek/Overlook	29 %	45% < 15 minutes
West Side Tunnel	26 %	77% < 15 minutes
The Loop	35 %	54% < 15 minutes
Big Bend	18 %	63% < 15 minutes
Oberlin Bend	12 %	65% < 15 minutes

**Table 8: Time Spent in Specific Areas Along the Road (Continued)**

Area	Percent of respondents who stopped	Highest % of respondents and length of time stopped
Logan Pass	76 %	29% 1-4 hours
Siyeh Bend	21 %	58% < 15 minutes
Jackson Glacier Overlook	36 %	68% < 15 minutes
Sunrift Gorge	29 %	43% < 15 minutes
Sun Point	29 %	43% < 15 minutes
Rising Sun	32 %	41% < 15 minutes
St. Mary Visitor Center	41 %	37% 15-30 minutes

Source: *Glacier National Park Survey of Visitors, Coley/Forrest, 2000*

Other geographic areas in Glacier were also surveyed for percentage of visitors in each area, amount of time spent there, and if any of these were areas that they wanted to visit but did not because parking was not available. Table 8 shows the results from 1,418 respondents total (only the highest percentage is reported for amount of time spent). The average estimated time spent for daily recreation is also shown.

**Table 9: Visitors to other Geographic Areas in Glacier National Park**

Area	Percent of respondents who stopped	Highest % of respondents and length of time stopped	Respondents who did not stop due to lack of parking	Average estimated time spent for daily recreation
Polebridge/ Northfork	8%	28% 1-4 hours	6	3 hours, 50 minutes
Many Glacier/ Swift-current	39%	59% 4 hours – 1 day	6	4 hours, 20 minutes
Two Medicine	18%	36% 1-4 hours	7	3 hours, 5 minutes
Chief Mountain	14%	66% < 1 hour	6	1 hour, 20 minutes
Camas Road	8%	42% 1-4 hours	5	2 hours, 50 minutes
Waterton, Canada	25%	63% 4 hours – 1 day	4	4 hours, 35 minutes

Source: *Glacier National Park Survey of Visitors, Coley/Forrest, 2000*

## Visitor Facilities and Services

There are many facilities in Glacier for visitor recreation and family gatherings, and which provide information that help the visitor get the most out of the park experience. Many public facilities are handicapped accessible.

**Visitor Centers/Ranger Stations.** There are three Visitor Centers within the park, differing in function and level of use.

- **Apgar Visitor Center** is small, with few services. A new Discovery Center/Museum has been proposed for this area. Existing services include exhibits, displays, information, and book sales. Some feel that a higher level of service is needed in the area, due to the high volume of visitors that stop there.
- **Logan Pass Visitor Center** was originally built as a warming hut and gradually transformed into a visitor center. It has been used primarily as a book sales outlet for the Glacier Natural History Association (GNHA), a non-profit for the park. The center also provides restrooms, exhibits, and information.
- **St. Mary Visitor Center** is the largest, providing the most services of the three. This center has displays, exhibits, information, books, a twelve-minute park orientation program, and backcountry permits.

Ranger Stations and other similar facilities include the Glacier Headquarters, Many Glacier Ranger Station, and Polebridge Ranger Station. These facilities are provided for the visitor so that they can ask questions of Glacier staff; obtain brochures, maps, and other written materials about the park; and get an overall feeling for the type of experience they would like to have in the park.

**Other Visitor Facilities within the Park.** Following is a list of other visitor facilities within the park:

- 100 historic buildings operated by concessioners
- 13 campgrounds with 1,137 sites
- 177 picnic sites
- Over 750 buildings (NPS and concessions)
- 116 housing units
- 429 documented archaeological sites

- 358 historic structures listed on the National Register of Historic Places (NRHP)
- Six National Historic Landmarks

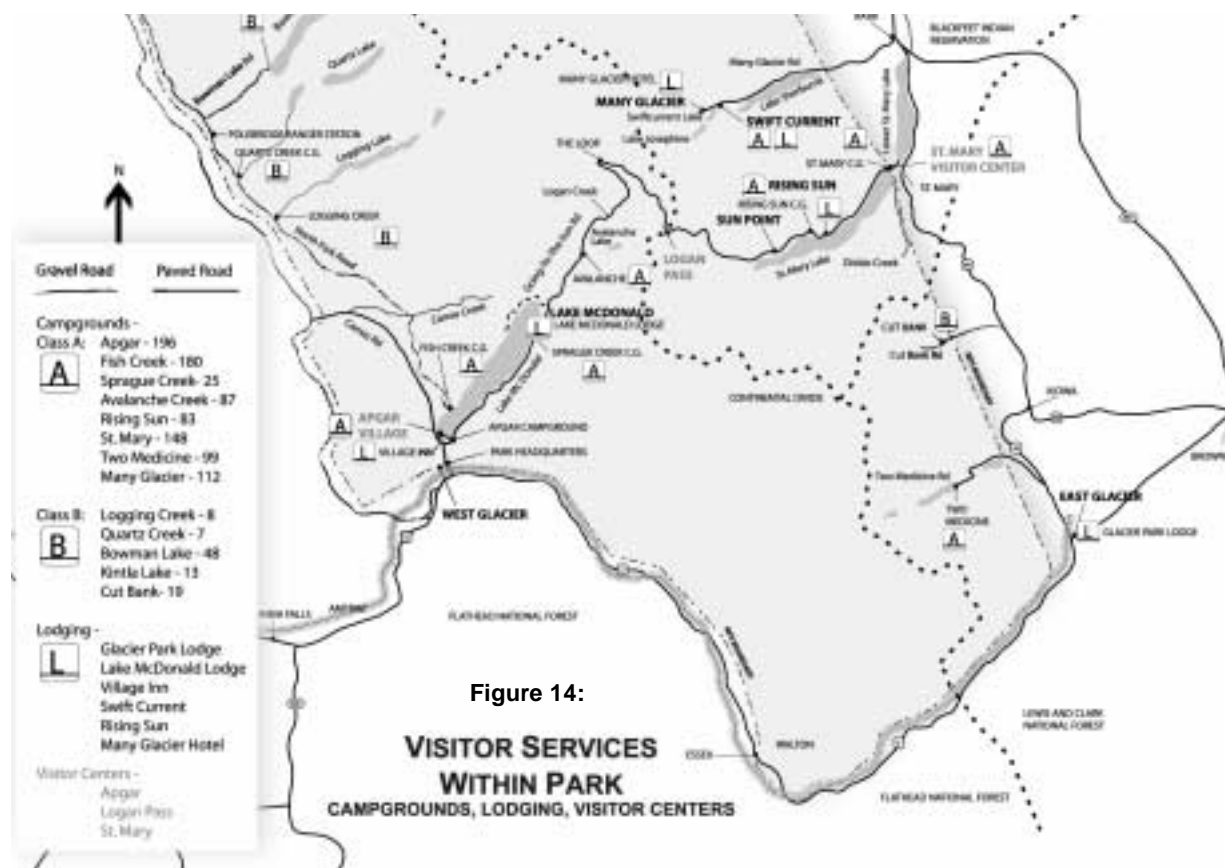
**Law Enforcement and Emergency Services.** The NPS provides emergency medical services within the park. Hospitals are located in Cut Bank, Kalispell, Whitefish, and Choteau. Glacier also has 94 EMS providers.

The NPS also has exclusive jurisdiction to provide law enforcement and works in cooperation with other agencies in surrounding areas to lend support in emergencies. In 1999, the following law enforcement-related activities took place:

- 933 traffic violations
- 454 natural resource violations
- 25 incidents requiring assistance to other agencies
- 968 incidents requiring assistance to citizens
- 131 emergency medical responses
- 41 search and rescue incidents
- Two fatalities: one fall and one climbing accident

**Fees.** The park takes part in a fee demonstration program with the Department of the Interior and the NPS. The money is used for the backlog of repair and maintenance projects, to provide a higher quality park experience, and to enhance the protection of resources. 80 percent of the money collected in the park stays within the park and the other 20 percent is distributed for use by other units of the NPS. The 2000 rates are as follows:

- Vehicle pass - \$10
- Single person pass - \$5
- Glacier annual pass - \$20
- Golden Age Passport - \$10 (lifetime pass for U.S. citizens 62 years and older)
- National Parks Pass - \$50 (valid at all national parks with an entrance fee for one year from month of purchase)



## Existing Capacities

**Visitor Centers/Orientation/Discovery Center** (Figure 14). Visitor center capacities have not been developed. The following information is based on staff observations. No information is available for the capacity of the proposed Discovery Center at Apgar.

- **Apgar Visitor Center.** The Apgar Visitor Center is a converted two-bedroom house that accommodates about 190,000 visitors annually. Based on staff observations, approximately 30 people in the building results in crowded conditions.
- **Logan Pass Visitor Center.** No information is available on capacities, but this visitor center becomes particularly crowded during peak periods and on cold, windy days.

- **St. Mary Visitor Center.** This center has the largest capacity. Based on staff observations, between the lobby/sales, area, exhibits, and auditorium (200 seats), the building can accommodate several hundred people. The lobby area is occasionally congested, but the auditorium is almost always empty.

**Ranger Stations.** Building capacities have not been determined for the ranger stations within the park.

**Parking.** See Appendix B for a complete inventory of parking areas and pullouts along the Road.

**Interpretation/Viewing Areas.** There are currently 113 wayside exhibits throughout the park, but capacities at these sites have not yet been determined. See Appendix D for a description of those areas.

**Campgrounds.** Glacier has thirteen campgrounds, classified A or B. Class A campgrounds are accessed by a paved road, have running potable water, flush toilets, and waste disposal. Class B campgrounds are accessed by gravel road, have outdoor toilet facilities, and potable water from a pump. Numerous backcountry camping areas are also available throughout the park; these are accessed by hiking trails only. Both types are listed below, with capacities.

**Class A:**

- Apgar - 196
- Fish Creek - 180
- Sprague Creek- 25
- Avalanche Creek - 87
- Rising Sun - 83
- St. Mary - 148
- Two Medicine - 99
- Many Glacier - 112

**Class B:**

- Logging Creek - 8
- Quartz Creek - 7
- Bowman Lake - 48
- Kintla Lake - 13
- Cut Bank- 19

**Total (Class A and B):** 1,025

**Trails.** There are approximately 730 miles of unpaved trails in the park, and approximately eight miles of paved trails.

**Concessions.** Concession capacities includes the GPI tour and shuttle services. Capacities for the service include 33 vans that accommodate twelve passengers per vehicle. Maximum capacity for the entire service is 396 passengers.

**Entry Gates.** This information has not yet been determined. However, assuming the average visitor takes 30 seconds at an entrance station, each entrance station lane can accommodate 120 vehicles per hour.

**Lodging.** Lodging capacities include hotel facilities within the park. All of these facilities are run by the GPI concession. Approximate capacities for each of these facilities are listed below (these numbers assume that each bed is used to capacity, i.e., each single sleeps one person and each double, queen, or king bed sleeps two people).

**Lake McDonald Lodge**

- Total rooms - 100
- Total capacity – 335

**Rising Sun**

- Total rooms – 72
- Total capacity – 226

**Village Inn**

- Total rooms – 36
- Total capacity – 138

**Many Glacier Hotel**

- Total rooms – 211
- Total capacity – 546

**Swift Current**

- Total rooms – 88
- Total capacity – 271

**Total Rooms: 507**

**Comfort stations.** Comfort stations along the Going-to-the-Sun Road are classified by four different types: flush, portable, vault, and S.S. vault. The total number of comfort stations along the Road is eighteen.

## Indicators, Standards, and Monitoring

Visitor use can be measured in many ways. For most national parks, this is done in a manner consistent with the features of that particular park. However, the development of uniform visitor use indicators could serve as guidelines for all parks, to be modified as necessary. The forms of measurement below have been used at national parks and could be considered for use within Glacier, as the park does not currently



have specific or documented standards and indicators for visitor use (see *Indicators, Standards, and Monitoring* under Transportation for definitions).

**Visitor Satisfaction.** Visitor satisfaction levels can be documented through monitoring tools such as surveys, interviews, or observation. However, this type of information should be gathered actively rather than passively. In other words, if visitor satisfaction is measured based solely on the number of people who report negative experiences, the results do not provide a true picture of overall visitor satisfaction. It would be difficult to determine whether or not this means that all other visitors are satisfied, or if they have chosen not to report negative experiences.

A standard for visitor satisfaction could be based on factors such as a pre-determined percentage of people that respond favorably to park conditions, or an average of several responses.

**Transportation Facilities and Services, Roadways, and Concessions beyond Capacity.** Visitor amenities that are over capacity provide another way of measuring visitor use. Standards for exceeded capacities vary, depending on whether or not a definite number can be determined. Parking lots, for example, have a set number of spaces. If all spaces are in use, the parking lot is at capacity. If other vehicles are waiting to park in that lot, it is over capacity and the standard has been exceeded. Park staff would be responsible for monitoring parking areas that experience higher volumes.

Pedestrian trails (frontcountry or backcountry), however, do not have a “set” limit of people that can be present at one time. Therefore, determining capacity is much more subjective. These types of capacities must be measured by visitor surveys, interviews, and observations.

**Impact to Natural Resources.** Impact to natural resources is another indicator that could be measured by park staff. Especially in developed or frequently used areas of the park, impact to natural resources could be measured in definite terms. For example, if the disappearance of a set number of plants or the occurrence of viewing a particular species of wildlife falls below a certain level in a designated area, that standard has been exceeded. Monitoring for these conditions can be carried out by staff biologists or other qualified personnel.

**Number of People at One Site at One Time.** While it is not difficult to determine the number of people at one site at one time, it is difficult to determine how many would be considered capacity. This can be measured subjectively by interviewing visitors in that area. Visitors are asked how many people can be in the area before it is “too crowded.” This type of subjective measurement would be averaged to obtain the most fair and accurate data to be used as a standard.

**Encounter Rates.** Encounter rates involve the number of times an individual or group of people encounters other visitors in a particular area, such as on a hiking trail. This can also be measured subjectively by surveying or interviewing visitors as to acceptable encounter rates. The information would then be averaged to determine an acceptable standard for encounter rates for the largest number of visitors.

**Ability to Interact with Ranger.** For some visitors, the ability to interact with a ranger is an important and enjoyable aspect of visiting the park. These visitors appreciate the opportunity to ask questions and gain first-hand knowledge about the history of the park, current conditions, and good places to visit. When visitor use is high during the peak season, rangers may be more difficult to find, or may not have the time to spend with each visitor. Visitor interviews or surveys can determine whether or not a ranger was present during their visit (the standard), or if they were able to find a ranger when necessary or desired.

**Noise.** Acceptable noise levels in different areas of the park can be set to correspond to the experience level of that particular area. For example, the Avalanche area may have a higher noise threshold level because the area is more developed and visitor use is high. However, once this threshold has been reached (determined by monitoring over a period of time by park staff), this could serve as an indicator that visitor use has surpassed the acceptable standard for this area.

## Deficiencies in Existing Visitor Use Monitoring, Facilities, Amenities, Services, etc.

Many deficiencies have been identified for the current visitor use system within Glacier. These deficiencies were determined based on existing conditions described above, employee interviews, and public sentiment. While some of the deficiencies were identified and supported by an overwhelming majority, others are simply mentioned here to demonstrate the full range of possibilities.

Potential deficiencies of the visitor use system within Glacier are as follows:

**Table 10: Potential Deficiencies in the Visitor Use System, Glacier National Park**

Visitor Use Category and Type	Potential Deficiency	Other Comments
General		
<ul style="list-style-type: none"> <li>Policy</li> </ul>	Lack of compliance with 1978 law requiring establishment of carrying capacities within National Parks (Glacier and all National Parks)	Difficult to attain as the issue is subjective and based on values in some situations
	Infrastructure being built to accommodate increased use, rather than managing areas for set carrying capacities	
	Lack of funding because visitor use is not given adequate attention	
	Lack of partnering and good rapport with local communities	
<ul style="list-style-type: none"> <li>Visitor Communication</li> </ul>	Lack of communication with visitors before they enter the park	Pre-marketing could notify visitors of crowded conditions or construction schedules
Amenities, Facilities, and Services		
<ul style="list-style-type: none"> <li>Visitor Centers</li> </ul>	All are overcrowded; over capacity	Structures too small
	St. Mary Visitor Center does not operate for a long enough season	
<ul style="list-style-type: none"> <li>Campgrounds/ picnic areas</li> </ul>	No "tents only" campground	
	No campground shower facilities	

**Table 10: Potential Deficiencies in the Visitor Use System,  
Glacier National Park (Continued)**

Visitor Use Category and Type	Potential Deficiency	Other Comments
Campgrounds/ picnic areas, continued	Campgrounds run-down and in need of rehabilitation	40-50 years old with no rehabilitation
	Not enough picnic areas along Going-to-the-Sun Road	
	Picnic areas along Going-to-the-Sun Road not clearly marked	
	No accommodations for longer RVs or other vehicles	
• Recreation	Not enough hiking trails	2000 visitor survey
• Interpretive Activities	More needed	
	Guided tours understaffed/under funded	Content is good
	Need to schedule during off-peak times	
	Need better technology/tools	
	Staff is lost during shoulder seasons	Could do guided walks well into fall and earlier in spring
	Lack of outreach beyond park	Environmental education, speaker bureaus, constituency building, etc.
	Signs and information not well placed	
• Comfort Stations	Poorly located	
	Poor maintenance	
	Poor signage/information available to visitors regarding locations	
	Not enough	
• Concessions	Complaints from some guests on room size, food, staffing, costs, etc.	
	Transit system is inadequate	
	No bicycle concession	
	Shower/laundry facilities inadequate	
• Tours	Need more	
	Not well advertised	

**Table 10: Potential Deficiencies in the Visitor Use System,  
Glacier National Park (Continued)**

Visitor Use Category and Type	Potential Deficiency	Other Comments
<ul style="list-style-type: none"> <li>Tours, continued</li> </ul>	Lacking historic tours	Need more than just scenic
	Photography tours not well-regulated from compliance/permit standpoint	
	Lack coordination with other amenities	Don't coordinate with hotels or other amenities in park
<ul style="list-style-type: none"> <li>Handicapped Accessible Areas, Facilities, and/or Services</li> </ul>	Not enough	Need to make all compliant
	Lack of funding	
	Need universal design	
<ul style="list-style-type: none"> <li>Staff</li> </ul>	Lacking comprehensive knowledge on all areas of the park	Currently seem to be sending everyone to the same areas; many visitors don't know some areas of park exist
	Lacking specific knowledge and tools on visitor experience levels	Creates more intensified use at already crowded areas
	Not enough staff	Lack of funding
	Volunteer program inadequate	Need better management
	Lack of good facilities in which to educate visitors	